



Report on Acquisition and Project Management Continuous Improvement

**U.S. Department of Energy
Office of Environmental Management**

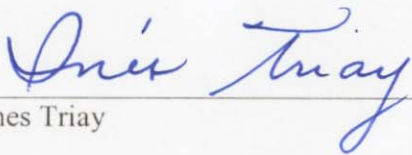
October 2010

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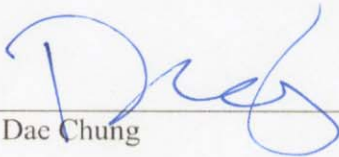
October 2010



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Executive Summary

Since the Office of Environmental Management (EM) was established within the U.S. Department of Energy (DOE) 20 years ago, both DOE and EM have been routinely scrutinized for their management of contracts and projects. Because most of EM's work is accomplished through the use of contracts, the acquisition management and project management functions have been regular targets for internal and external reviews, similar to other agencies with major cost reimbursement contracts. These reviews have produced several significant recommendations which, after implementation, have resulted in measurable performance improvement. EM senior management has committed to extensive management reforms and has completed several robust improvements in contract and project management. Additional improvement initiatives are continuing and this document outlines the consolidated plan of these initiatives in a top-down framework of EM vision, goals, strategies, performance metrics, and specific improvement actions completed or being undertaken.

A key challenge for the EM program has been the design and construction of major complex, one-of-a-kind nuclear facilities to treat and process hazardous/radioactive materials and waste. EM has four active nuclear facility construction projects which range in cost from \$380 million to \$12.3 billion. In the Fiscal Year (FY) 11 Congressional Budget request, these four projects alone totaled \$1.1 billion out of a total request of \$6.05 billion. The balance of the funding supports the decontamination and decommissioning (D&D) of facilities; cleanup of soil and groundwater; disposition of nuclear materials; and the operations of nuclear storage and processing facilities. While there have been a few activities in the balance of the program which have had cost and performance issues, these activities have, for the most part, been completed within cost and schedule. Thus, the focus of improvement has rightfully been on the large construction projects and the continuous improvement of the balance of the EM portfolio.

Portfolio Cost and Schedule Performance

The key measure of the "health" of the overall EM portfolio is cost and schedule performance. The earned value (EV) performance of each Program Baseline Summary (PBS) (except for the four line item construction projects which have acknowledged cost and schedule performance shortfalls) over the past nearly three years was examined (May 2007, May 2008, May 2009 and February 2010). The standard EV indices of the Cost Performance Index (CPI) and Schedule Performance Index (SPI) were utilized. Changes to the PBS baselines were also checked to ensure graphs were reflecting performance comparisons rather than the impact of multiple baseline changes. Changes impacting the near term baseline costs or schedules were limited to nine PBSs and for only a net \$300 million, or 0.6% of the total EM portfolio amount.

As can be seen in the following two graphs (the first for cost and the second for schedule), less than 5% of the PBSs had performance indices of less than 0.9. This means that less than 5% of the PBSs by dollar amount had costs or schedules exceeding the baseline by more than 10%.

Figure ES-1. Cumulative CPI Values for PBSs, 2007 to 2010

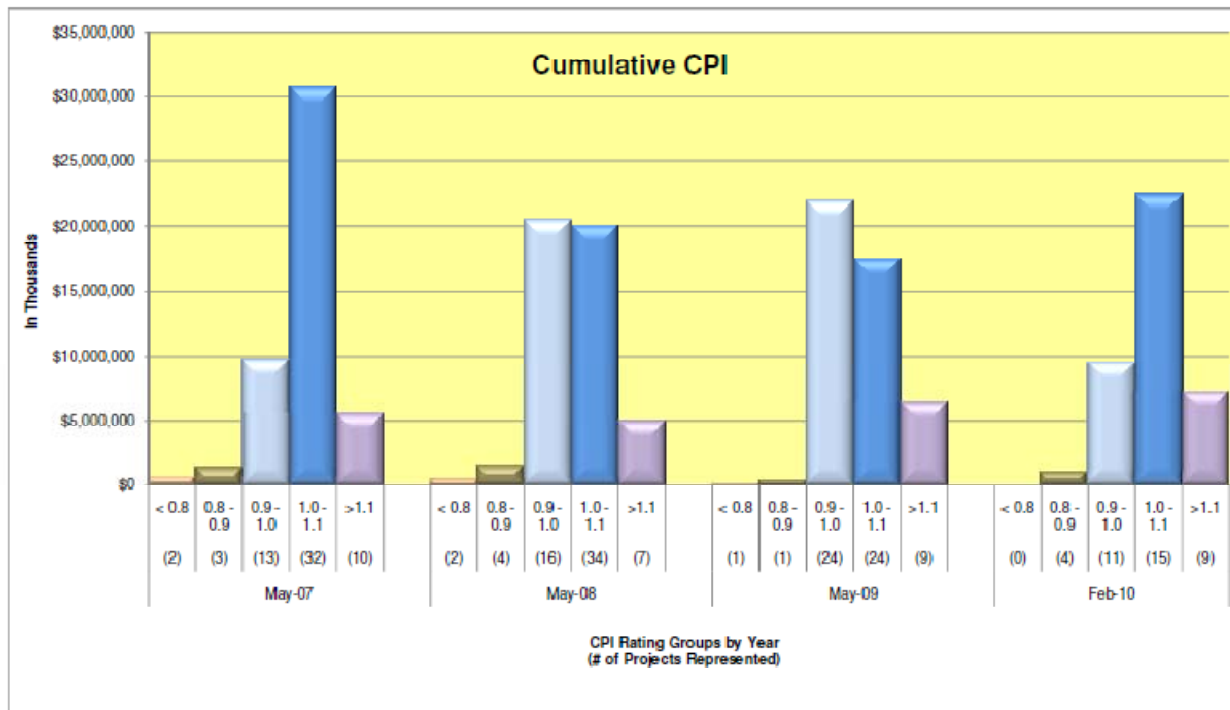
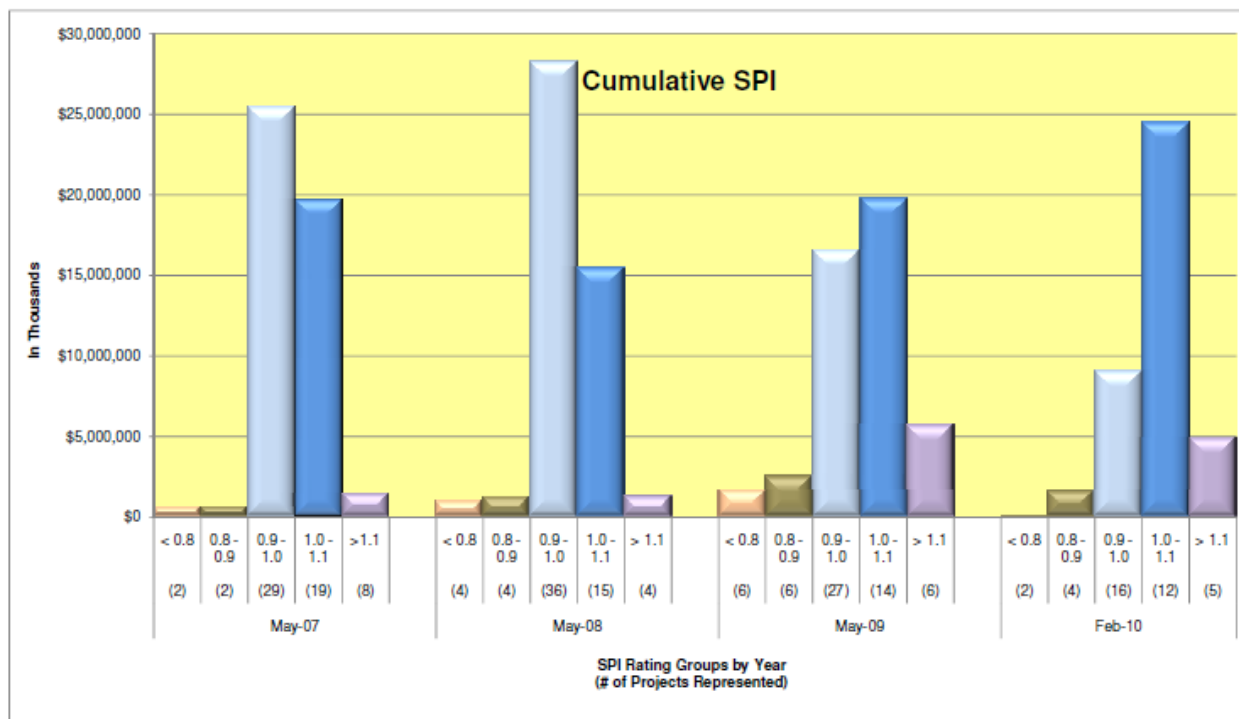


Figure ES-2. Cumulative SPI Values for PBSs, 2007 to 2010



Thus, for the nearly \$5 billion annual EM portfolio, the cost and schedule performance across PBSs since 2007 has been commendable. The performance represented by these charts reflects a viable and effective program, delivering results for the taxpayer dollar. It also demonstrates that the focused effort on contract and project management over the last several years has brought the EM program to the point where reforms are complete, and a sustainable program is in place. Future actions, many of which are discussed in this report, will provide for continuous improvement in program execution and performance.

Reforms and Continuous Improvement

As early as the 2004 Congressional Budget Request, EM embarked on accelerated cleanup initiatives premised on a set of management reforms. In 2006, the National Academy of Public Administration (NAPA) recommended significant structural and organizational alignment improvements in acquisition as well as project management. In February 2007, EM partnered with the U.S. Army Corps of Engineers (USACE) to implement a Best-in-Class (BIC) initiative¹ aimed at improving project controls, baseline management, cost estimation, change control, schedule management, acquisition strategy and planning, contract change order management, and business clearance reviews. In February 2008, the EM Quality Assurance (QA) Corporate Board was chartered as the natural progression from the EM Quality Assurance Initiative begun in 2007.

EM was a key participant in the DOE Root Cause Analysis (RCA) for determining the cause for performance challenges for Departmental capital asset projects. The RCA Report was completed in April 2008, and an RCA Corrective Action Plan² (RCA CAP) was issued in July 2008. EM led the Departmental teams for addressing two of the corrective measures and actively participated in addressing the other six corrective measures.

In August 2009, EM consolidated all ongoing acquisition management and project management improvements, including those stemming from the Government Accountability Office (GAO)³, the Department's RCA CAP, the BIC initiative, the NAPA Report⁴, and EM-generated improvement initiatives into a comprehensive corrective action plan that includes performance metrics and completion milestones. This Report includes the 2010 status of the *EM Acquisition Management and Project Management Corrective Action Plan* (EMCAP) and provides a consolidated and integrated summary of completed and ongoing initiatives directed at producing real, measurable, and sustainable continuous performance improvement. It incorporates goals, strategies and performance metrics related to contract and project management from the "Journey to Excellence," a new key initiative that EM embarked on in 2010 to stabilize a single best and sustainable way of doing business for EM, including a new EM business model built to

¹ Office of Environmental Management Best-in-Class Initiative, 2006 – 2007.

² Department of Energy Root Cause Analysis Corrective Action Plan, July 2008.

³ Government Accountability Office Report, GAO-08-1081, August 2008.

⁴ National Academy of Public Administration Report on DOE Environmental Management Program, 2007.

place authorities and accountability in the field closest to the where the actual work occurs. Transition to and implementation of the “Journey to Excellence” as the follow-on from the EMCAP is a significant step toward fundamentally reshaping the acquisition and project management culture within EM.

These continuous improvement initiatives are beginning to show significant results. Some of these accomplishments are summarized below:

- **EM is demonstrating improved performance on major projects:**
 - Achieved a 100 percent success rate (i.e., completed within 10 percent of the original cost baseline) for clean-up projects initiated within the two years and completed in FY 10.
 - All major legacy projects, including the Waste Treatment Plant (WTP), are on track to be completed within their current baseline.

- **EM is building up the capacity (people and resources) for improved oversight of contracts and projects**
 - Conducted independent studies of staffing needs and developed a remediation plan, especially focused on capital asset projects. Hired more than 100 additional contract and project management professionals since FY 08 and established partnership with USACE in 2007 to provide more than 90 full-time equivalent (FTE) staff annually.
 - Developed an agreement with the Seaborg Group for an EM Technical Expert Group to provide expeditious access to high caliber technical expertise for design reviews and technical analysis.
 - Certified 87 percent of EM contract specialists through DOE’s Acquisition Career Management program.
 - 94 percent of EM clean-up projects are managed by a Federal Project Director (FPD) certified at the appropriate level of the Project Management Career Development Program.
 - Created a Tank Waste Subcommittee under the Energy Management Advisory Board to assure enhanced science and technology expertise is brought to bear on EM tank waste projects.

- **EM is monitoring and independently validating the effectiveness and sustainability of reforms**
 - EM led the departmental effort of deploying the new Project Assessment and Reporting System (PARS II)
 - Established an Independent Quality Assurance Program to verify that reforms resulting from studies of EM project management remain as continuing elements of EM program execution, with a focus on ensuring that processes and procedures are effective and being followed.
 - Increased the frequency of EM senior management-led contract and project management performance reviews with program/project staff and contractors from quarterly to monthly. The Office of Management and Budget (OMB) and GAO are invited to participate in these reviews.

- Developed an Executive Dashboard for EM projects to track commitments resulting from “deep dives” held by the Deputy Secretary as well as portfolio performance.
- **EM is supporting departmental efforts on improving policies and procedures to gauge the quality of contractor cost estimates and independently validating these estimates**
 - Established a cost-estimating Center of Excellence at the EM Consolidated Business Center to improve the quality of independent government estimates for construction and cleanup projects.
 - Continued to develop the Environmental Cost Analysis System (ECAS) to consolidate data from completed projects in a database to promote improved cost estimating.
 - Utilizing Federal Acquisition Regulation (FAR) Part 15 contracts that require offerers to develop cost proposals.
- **EM is providing sustained leadership commitment and is successfully implementing the reforms for improving contract and project management.**
 - Assistant Secretary Triay has launched the Journey to Excellence road map. This strategic planning document defines our core values that will serve as the “rules of the road” and defines our vision, goals, strategies and performance measures. These goals and measures flow into annual performance plans for managers and employees.
 - Led the Department in execution of the \$6 billion American Recovery and Reinvestment Act (ARRA) program, and used the lessons and experience to further improve the entire EM program.
- **EM is making improvements in project management practices**
 - Restructured projects into smaller, better defined capital asset projects and non-capital operations activities to provide more focused management and oversight.
 - Required capital asset projects to complete 70-90% design prior to baseline approval.
 - Implemented a policy requiring that performance baselines for capital asset projects are established with a minimum 80% confidence level and that contingency is budgeted for in the baseline.
 - Certified that 86 percent of DOE clean-up projects use Earned Value Management Systems (EVMS) that comply with the industry standard, ANSI/EIA-748B, to track performance.
 - Conducted independent project peer reviews using the Office of Science model for our major construction projects including: Salt Waste Processing Facility project at the Savannah River Site (SRS), WTP project at Hanford, WA and Sodium Bearing Waste project in Idaho
 - Used Project Definition Rating Index to evaluate all ARRA projects prior to baselining.
 - Management Reserve and Contingency use is presented in the updated Monthly Report formats for HQ review.

➤ **EM is making improvements in contract management practices**

- Expanded the use of FAR Part 15 (non-M&O) contracts for capital asset projects and other non-capital work and awarded smaller, more-focused contracts (e.g., work previously performed by three prime contractors at EM's Hanford site and SRS is now performed by 5 prime contractors).
- Established a Procurement Strategy Panel with senior level representation from EM, MA, GC, OECM, and OSDBU to discuss procurement strategy with the Integrated Project Team early in the planning process to address issues that could result in future delays.
- Established the Environmental Management Acquisition Center (EMAC) to standardize the acquisition planning process resulting in more efficient and timely acquisitions.
- Established Recovery Act Site Representatives (RASRs) to provide additional oversight of contractor Recovery Act work.
- Establishing partnering relationships for all major contracts to create win-win scenarios, where both the federal and contractor staff understand and respect the rules of engagement and build better business relationships.
- Improved contracting for SRS Tank Waste Program –At SRS, the site was managed under a single Management and Operating (M&O) contract for 50-plus years. EM focused its acquisition strategy on Liquid Waste remediation. We separated higher risk tank closure work from M&O type work to achieve lower overall costs. Competition resulted in a contract to close 20 tanks in eight years, versus the 12 tanks originally planned in the Federal Baseline. This Strategy at SRS is expected to result in acceleration of life-cycle baseline by 6 years and reduce the life-cycle costs by over \$3 billion.

Performance Compared to GAO Criteria

EM has established the proper personnel, budget resources, and systems to resolve its contract and project management problems and monitor and independently validate the effectiveness and sustainability of reforms. In January 2009, GAO acknowledged that DOE had met three of the five criteria for removal of high risk designation. Over the past two years, EM believes it has successfully met the fourth and fifth GAO criteria for removal from high risk designation.

Table ES-1 EM's Accomplishment of GAO High Risk Criteria

GAO Criteria for removal from High-Risk Designation	EM Status
1. Demonstrate Strong Commitment and Leadership	Met Criteria
2. Demonstrate Progress in Implementing Corrective Measures	Met Criteria
3. Develop a Corrective Action Plan that Identifies Root Causes, Effective Solutions, and a Near-Term Plan for Implementing the Solutions	Met Criteria
4. Have the Capacity (People and Resources) to Resolve the Problems	Met Criteria
5. Monitor and Independently Validate the Effectiveness and Sustainability of Corrective Measures	Met Criteria

EM understands the fundamental principles for effective contract and project management, including leadership commitment, appropriate management and technical expertise, and disciplined and rigorous implementation of contract and project management policies. These principles have been and will continue to be aggressively pursued by EM to ensure project management requirements are consistently followed, oversight of contractors continues to improve, and accountability for performance is strengthened. Ultimately, EM's effectiveness and success will be measured by the continued improvement of cost and schedule performance.

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1.0 Introduction

EM leadership and the entire organization are committed to the continuous and sustainable improvement in contract (or acquisition⁵) and project management. This document outlines the EM vision, goals, strategies, performance metrics, and specific actions completed or being undertaken to improve contract and project management performance. This document will also serve as a vehicle for continuous improvement, tracking new or revised strategies and actions, and summarizing progress.

EM Contract and Project Management Vision

The EM vision for contract and project management is to be recognized as a best-in-class organization with strong leadership; effective and sustainable plans, policies and procedures; a qualified and capable federal workforce; and valuable knowledge and information management systems.

EM Performance Goals

Capital Asset Line Item Projects: Capital asset line item projects will be completed at CD-4 within the original scope baseline and within 10 percent of the original approved cost baseline (CD-2), unless otherwise impacted by a directed change.⁶ Baselines impacted by a directed change will have adjusted baselines established and documented. On an EM program portfolio basis, 90 percent of EM line item projects will meet the project success definition benchmark.⁷

EM Cleanup (Soil and Groundwater Remediation, D&D, and Waste Treatment and Disposal) Projects: The EM cleanup projects will be measured against the same criteria as the line item projects.⁸ The aforementioned goals are included as overall performance metrics in *Section 3.0, Project Performance and Metrics*, along with 20 additional performance metrics to measure performance and progress related to the operations activities

EM Portfolio

The EM portfolio of programs, projects, and activities is the largest and most diverse when compared with other DOE organizations with major contracts and projects (i.e., Office of

⁵ Acquisition management and contract management are used interchangeably throughout the document.

⁶ Directed Change: Changes, as validated by the DOE Office of Engineering and Construction Management, caused by DOE Policy Directive, Regulatory, or Statutory action. Directed changes, with the exception of policy directives, are changes that are caused by entities external to the department, to include external funding reductions. (Directed change decisions other than policy will be reviewed and validated by OMB periodically.)

⁷ This category includes capital asset projects being executed as line item construction projects and miscellaneous minor new program-specific or general construction projects whose total estimated cost is equal to or greater than the threshold of \$10 million for General Plant Projects and Institutional General Plant Projects.

⁸ Per Root Cause Analysis Executive Steering Group decision, Quarterly Briefing to GAO, March 29, 2010.

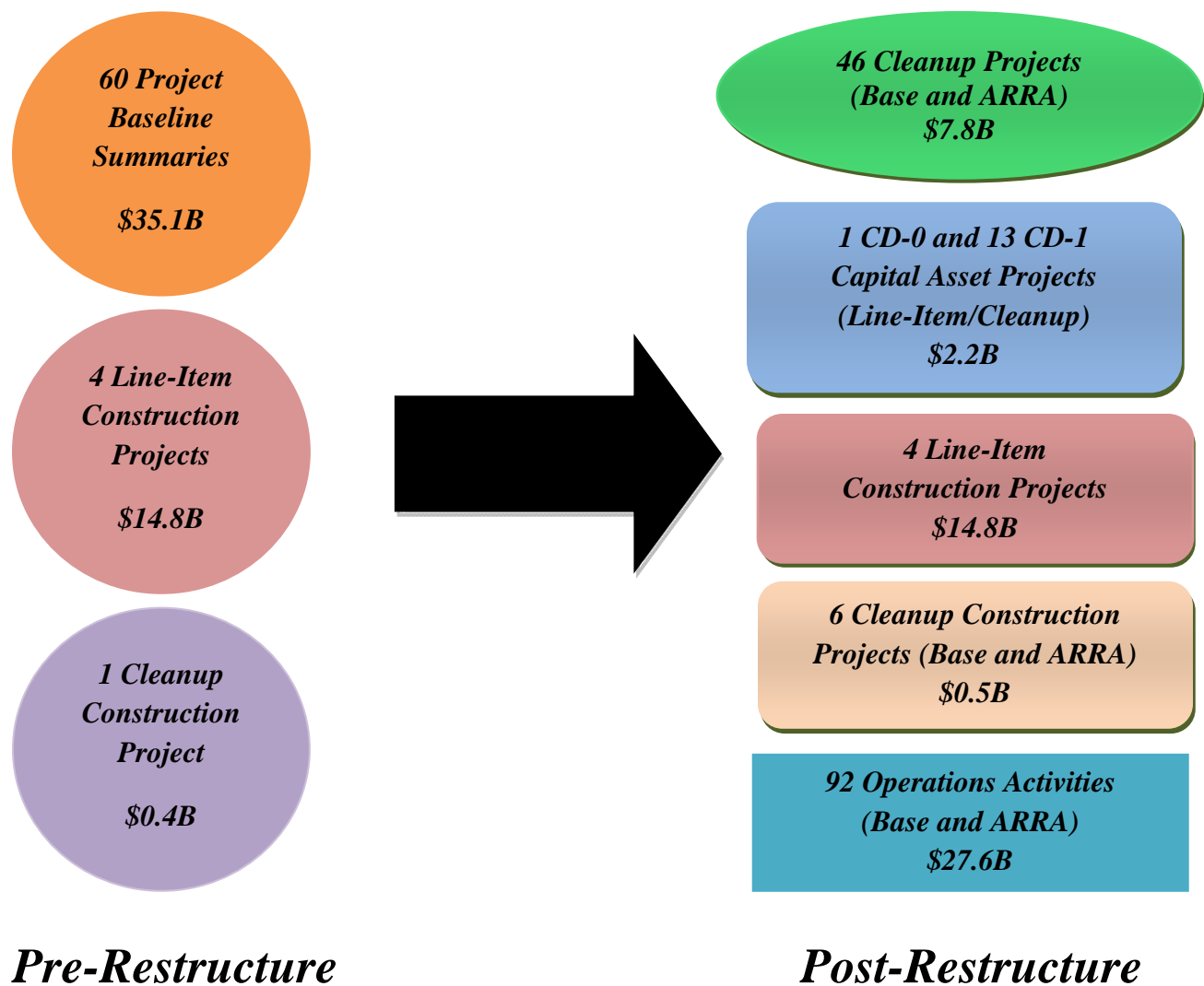
Science and National Nuclear Security Administration). EM ‘projectized’ its entire program portfolio into 60 PBSs in 2007. These PBS projects were planned and executed following the principles of DOE 413.3A. This approach served well for sometime, however it became apparent that the approach had limitations because (1) some PBSs were very large to manage and track, (2) budget profiles for PBSs were always in flux, (3) capital assets and operations were part of the same PBS project and as such EV metrics did not provide a complete picture of performance, and (4) GAO did not agree with the definition of project and portfolio success. In June 2009 the EM Acquisition Executive committed to the Deputy Secretary to restructure the EM portfolio by June 2010 to clearly differentiate and separate capital asset projects from non-capital operations activities. This focused effort was completed as committed and resulted in 46 clean-up projects, 14 capital asset projects at Critical Decision (CD) 0/1, four line-item construction projects, six clean-up construction projects, and 92 non-capital operations activities.⁹ The restructuring markedly increases the management visibility and attention of the original 60 PBSs and projects, now more than doubled to 162 projects and operations activities. Figure 1-1 on page three depicts the portfolio restructuring action.

The restructuring of the EM portfolio demonstrates a substantial step forward in improving the fundamental EM structure for project and contract management. The restructuring effort aligned with the Deputy Secretary’s March 4, 2010 memorandum on project management principles by focusing on project size and structure, design maturity and degree of characterization, funding stability, use of peer review input, improved project management information, and improved cost estimates. Separation of the operations activities from the former large PBS projects, each assigned an FPD or equivalent manager, provides for much greater focus and granularity of oversight and management. Minor refinements to the portfolio are expected to continue as part of ongoing EM program management and annual operating plan.

The 92 operations activities resulting from the restructuring effort represent a unique management challenge for EM. Although not defined as projects, these operations activities have objective metrics to measure performance; have milestones (often regulatory); are subject to budget limits; and are often preceded by, followed by, or integrated with capital projects. Thus, although they are not strictly subject to DOE Order 413.3A, *Program and Project Management for the Acquisition of Capital Assets*, they must be managed with similar discipline and rigor. EM has chosen to use the same project management principles from DOE Order 413.3A to manage the 92 operations activities. Key actions for each operations activity include by-name assignment of a FPD or equivalent; establishment of a lifecycle cost plan, integrated schedules, approval authorities, Project Management Plan, Risk Management Plan, and other key documents; monthly and quarterly performance reporting and reviews; appropriate change control processes; and inclusion in an annual operating plan.

⁹ S-2 Summary Report, Restructuring of the Environmental Management Program, June 30, 2010, and Revision 1 August 31, 2010

Figure 1-1. EM Portfolio Restructure – June 2010

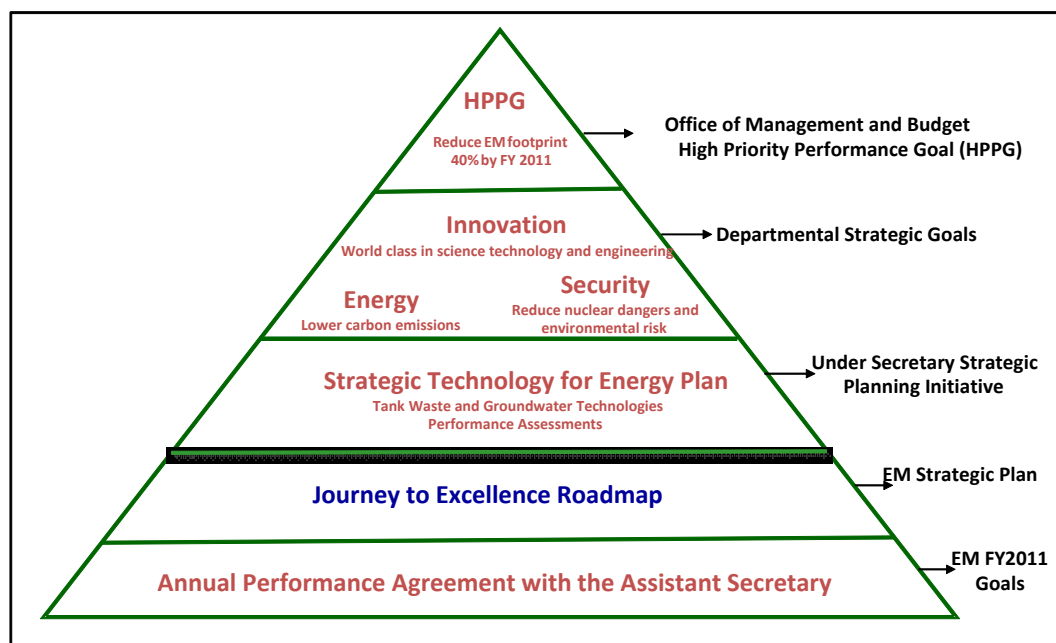


In addition to the EM portfolio restructuring described above, three significant new initiatives relating to acquisition and project management have been instituted since the original EMCAP was issued in August 2009. Staffing and resourcing have also received considerable attention, which is described in *Section 2.0, Acquisition and Project Management Improvements*.

Journey to Excellence

The Assistant Secretary has made it one of her top priorities to stabilize a single best and sustainable way of doing business. In 2009 she announced her “Journey to Excellence,” a strategic initiative for EM in the context of and in support of administration and departmental policies, strategies, and initiatives as depicted in Figure 1-2 below.

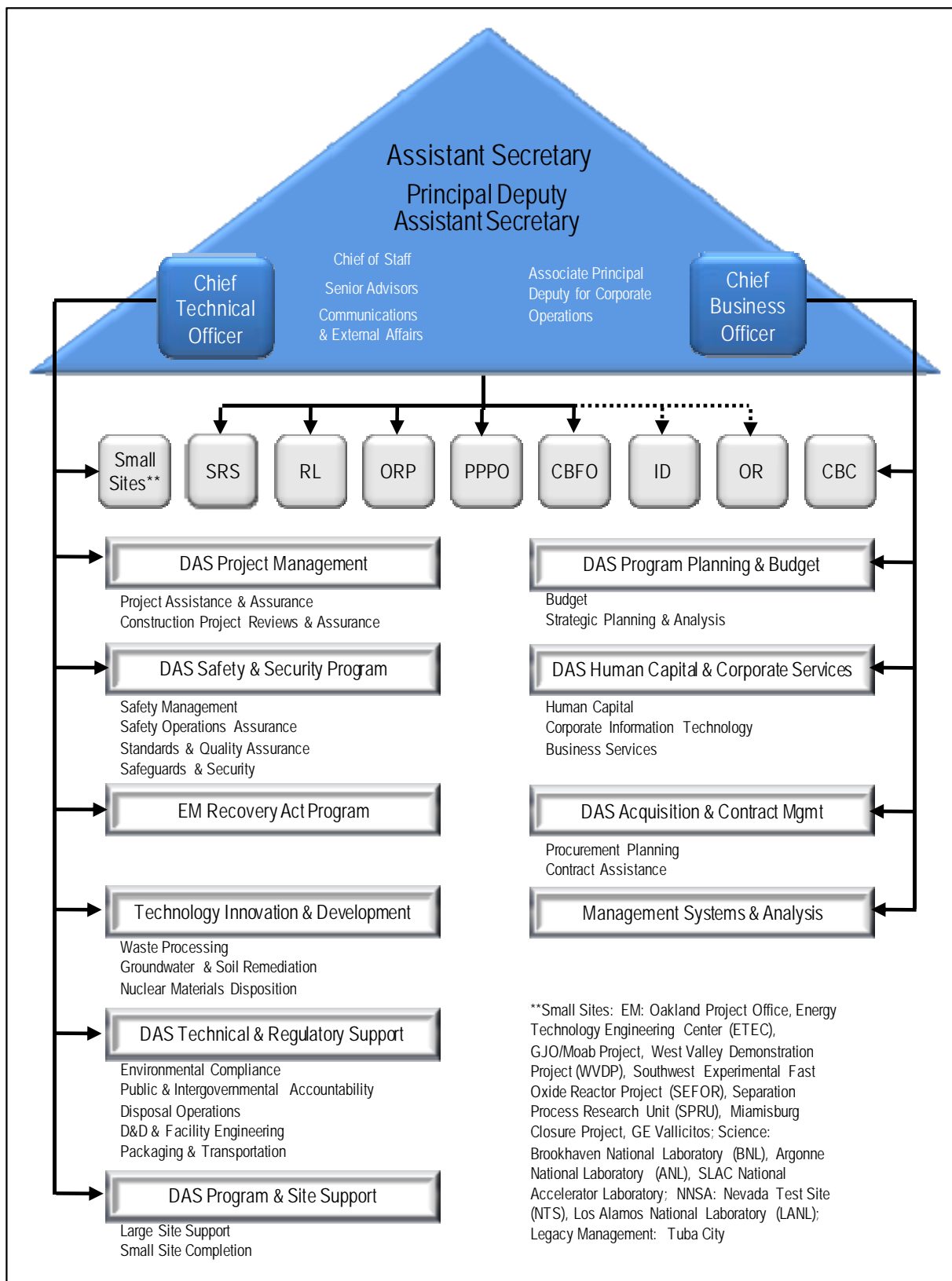
Figure 1-2. Hierarchy of Strategic Goals and Documents



The Journey to Excellence initiative incorporates a new EM Business Model (Figure 1-3) built on the governing logic which recognizes that EM’s mission is performed and achieved in the field, and places authorities and accountability closest to where the actual work occurs – in the field. At the same time, the DOE HQ role has been realigned to both strengthen its policy and planning functions, as well as to provide organizational best practices across the EM complex. By providing an “advise-assist-assess” headquarters paradigm, the organization as a whole will begin the migration to its vision of excellence. Through this paradigm, EM headquarters would “advise” DOE senior leadership and external Administration and Congressional stakeholders, “assist” the sites in successfully executing the EM mission, and “assess” the health of each sites’ performance capability. Senior managers within EM have been meeting monthly or more frequently to implement the excellence vision. A draft roadmap document¹⁰ was initially developed in August 2010 with seven goals to implement the vision.

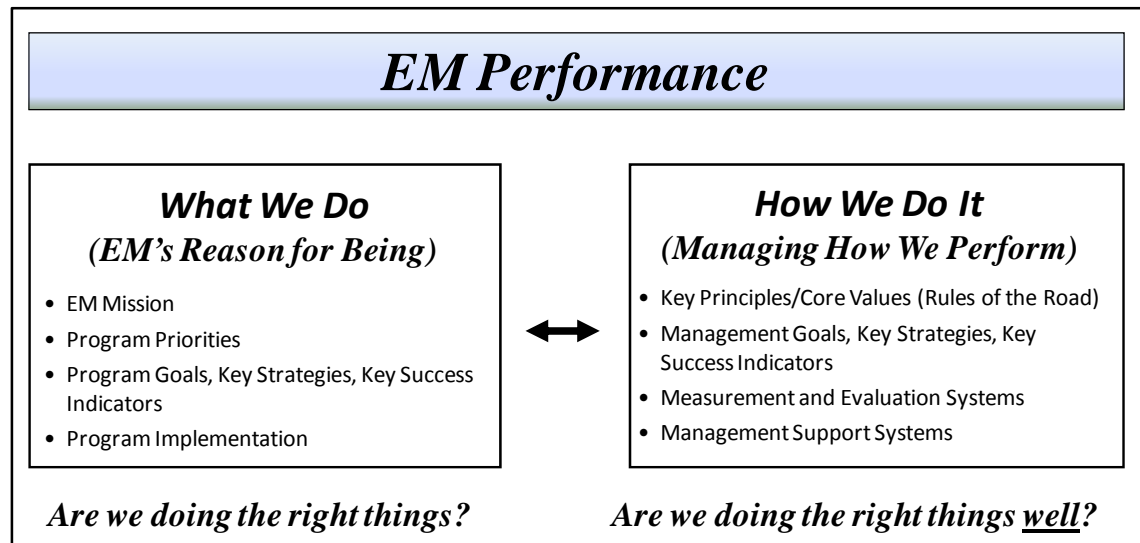
¹⁰ Roadmap for EM’s Journey to Excellence (Pre-Decisional), October 2010

Figure 1-3. EM Leadership Pyramid



The goals fall into two related categories—those that are programmatic (what we do) and those that are managerial (how we do it), as illustrated in the figure 1-4 below.

Figure 1-4. Programmatic and Managerial Aspects of EM Performance



There are four program-related goals and three management-related goals.

Program Goals – What We Do

- Goal 1. Complete the three major tank waste treatment construction projects within the approved baselines
- Goal 2. Reduce the life-cycle costs and accelerate the cleanup of the Cold War environmental legacy
- Goal 3. Complete disposition of 90 percent of the legacy transuranic (TRU) waste by the end of 2015
- Goal 4. Reduce the EM legacy footprint by 40 percent by the end of 2011, leading to approximately 90 percent reduction by 2015

Management Goals – How We Do It

- Goal 5. Improve safety and quality performance towards a goal of zero accidents, incidents, and defects
- Goal 6. Improve contract and project management with the objective of delivering results on time, and within cost
- Goal 7. Achieve excellence in management and leadership, making EM one of the best places to work in the Federal Government

These seven goals define the steps for EM to fulfill its mission and achieve its vision. The first goal, to complete the three major tank waste treatment construction projects within the approved baselines, directly addresses performance execution.

Key Strategies

- Work with the Federal staff, contractors, and union representatives to ensure that the projects have the necessary tools (such as technology resources, innovative tools to maintain motivation, and a strong owner's presence) to succeed in the most efficient manner.
- Partner with national laboratories, industry, academia, and the Corps of Engineers to ensure the best scientific and engineering resources are used, so that the technologies selected for development and deployment and the design and construction approaches used will help reduce risk, lower cost, and accelerate project completion.
- Establish an integrated design/engineering testing and commissioning framework across the EM complex to support project teams and enhance technical decision-making.
- Use the Code of Record concept to only make project changes that are essential to project success.
- Use Construction Project Reviews (CPRs) to identify and assist in resolution of key project issues regarding scope, cost, schedule, project risk management, and technical approach.
- Ensure the contract fee is aligned with completion of each capital asset.

Key Success Indicators

- Project cost and schedule performance indices are between 0.9 and 1.15, demonstrating that the project has acceptable performance with respect to cost and schedule. Ninety percent of Construction Project Reviews are performed as scheduled and results indicate fewer and fewer recommendations with each successive review.
- Ninety percent of Construction Project Reviews are performed as scheduled and results indicate fewer and fewer recommendations with each successive review.
- Ninety percent of Corrective Actions associated with recommendations identified in Construction Project Reviews are finished within six months of the completion of each Construction Project Review.
- Interim success parameters including schedule milestone metrics for each project are developed and evaluated monthly and can be used to predict project success.

The sixth goal, to improve contract and project management with the objective of delivering results on time and within cost, directly addresses contract and project management improvement. By establishing a management goal aimed at improving contract and project management, both EM as an organization and the individuals within EM will be able to focus and align performance standards that drive day-to-day work and decision making that will lead to sustained improvements.

Key Strategies

- Use the EM Contract and Project Management Corrective Action Plan as a starting point and create an internal quality improvement process that will lead to successful and sustained execution of EM contract and project management improvements.
- Improve and expand the use of independent contract and project reviews (IPRs), construction project reviews (CPRs), peer reviews, and external independent reviews (EIRs) to keep contracts and projects aligned and on track. Conduct verification and validation reviews to ensure performance data is credible and reliable.
- Strengthen the integration of acquisition and project management processes so that contract statements of work and deliverables are based on clear project requirements and robust front-end planning and risk analysis, ensure that nuclear safety requirements are addressed early, and changes to project baseline and the contract are managed through strict and timely change control processes.
- Complete restructuring¹¹ of the EM cleanup projects into smaller, more definitive capital projects and non-capital operations activities. Adhere to DOE Order 413.3 for planning and execution of capital assets and follow the same discipline for managing the non-capital asset operations activities e.g., establishing approval authorities, performance goals and metrics, project director designation, and change control procedures.
- Become a stronger owner by holding contractors accountable, pursue partnering relationships to create win-win scenarios, where both the federal staff and contractor staff understand and respect the rules of engagement and build better business relationships. Also, build stronger relationships with oversight organizations to improve communications and demonstrate transparency and accountability in EM's contract and project management.
- Develop EM specific cost estimating policy, guidance, historical cost databases, and expertise to improve our ability to perform Independent Government Cost Estimates (IGCEs).
- Invest in personnel development by providing training and career development in contract and project management.

Key Success Indicators

- Obtain EM removal from the GAO High-Risk List.
- Complete 90 percent of capital asset projects within 10 percent of original cost and schedule performance baselines unless otherwise impacted by a directed change.
- By 2010, fully deploy the Project Assessment and reporting System (PARS-II) to capture accurate and comprehensive data on DOE's capital asset projects. (Maintain at least 98 percent of project performance data reporting in Integrated Planning, Accountability and Budgeting System (IPABS)/PARS II error free.)
- By 2011, conduct Independent Estimate for all major systems projects prior to CD-2.
- Approve contract performance baselines within 180 days from contractor's final accepted submission.

¹¹ Restructuring complete at end of September 2010 and documented in *Summary Report, Restructuring of the EM Program, Revision 1*, August 31, 2010. Additional minor restructuring of projects may occur as part of ongoing EM program management.

- Finalize 80 percent of change orders within 180 days.
- Negotiate 100 percent of project changes that require contract modifications in advance of Acquisition Executive approval.
- Ensure life-cycle costs for the current EM program portfolio do not increase unless there is new work scope.
- Implement partnering agreements for all major contracts.
- Increase the percentage of projects with certified FPDs and certified contract specialists at the required level.

The specific details of how EM will achieve the first and sixth goal and their related objectives are described in the multi-year program plan, operational plans, and budgets prepared by the EM offices and field sites. Success will be measured against performance indicators in the Journey to Excellence Roadmap, the Annual Performance Agreement with the EM Assistant Secretary, performance-based contracts, and other performance tracking documents. The improvement initiatives reflected in Appendix A of this EMCAP identify the actions taken from multiple previous action plans. Most have been completed, with a few reflecting ongoing EM program activities. With the restructuring of the EM portfolio, execution of the Quality Assurance Program (QAP), and institution of the new EM Business Model, the future improvement initiatives will be initiated and tracked as an expected component of execution of the Journey to Excellence initiative.

Quality Assurance Program Execution

EM has been incrementally improving and expanding its QAP since the EM QA Initiative in 2007. The EM QA Corporate Board was chartered in February 2008 and involved active discussion which resulted in issuance of the EM Corporate QA Program in November 2008. This QAP provided a consistent set of QA requirements and expectations for the entire EM organization, including HQ, field offices, and contractors. A Quality Assurance Implementation Plan (QIP) was issued in April 2010. The QIP Phase I assessment verified that EM policy and procedure documents remain compliant with the requirements of the EM Corporate QAP. Implementation of the EM Corporate QAP by memo dated August 17, 2010 establishes the sustaining commitment to verify EM performance through assessment and corrective action programs. Each office within EM HQ along with their respective field counterparts will have the expertise and processes in place to provide oversight and conduct assessments beginning first quarter FY 11. Identified issues from those assessments will be tracked to closure through a formal corrective action program. A web-based Corrective Action Hub has been developed and successfully piloted, and is available as a resource for use by all of HQ and the field sites.

Interagency Learning

Like EM, the Federal Aviation Administration (FAA) had been on the GAO High Risk List for many years. The FAA was successful in being removed from the High Risk List in January 2009. In its 2009 update GAO said the following about FAA:

“Since 2007, FAA has continued to make significant progress in addressing the weaknesses that put it on the high-risk list. FAA executives, managers, and staff have demonstrated a strong commitment to – and a capacity for – resolving risks. Agency executives worked with Office of Management and Budget (OMB) to refine corrective action plans to address weaknesses, instituted programs to monitor and evaluate the effectiveness of corrective measures, and demonstrated progress in implementing these corrective measures. Specifically, FAA:

- 1. Improved management capabilities on major projects.*
- 2. Continued to develop an enterprise architecture – a blueprint of the agency’s current and target operations and infrastructure – and is refining it as FAA’s next-generation system becomes better defined.*
- 3. Implemented a cost estimating methodology and a cost accounting system.*
- 4. Implemented a comprehensive investment management process.*
- 5. Assessed its human capital challenges and is now identifying plans to address critical staff shortages. These efforts have yielded positive results.”*

EM has reached out to the FAA to learn from their experience which utilized a focused 30-month effort. Senior managers within EM have been briefed on several occasions by the Designated Manager for the FAA effort. Key lessons EM has taken from the FAA experience include focusing on the specific GAO criteria and messages, providing for verification and validation of any corrective measures, and developing a sustainable approach to contract and project management challenges. The Journey to Excellence and QAP implementation described above directly address these key lessons from FAA, and provide confidence that EM is taking the right steps to ensure success.

2.0 Acquisition and Project Management Improvements

EM is committed to sound acquisition and project management and has focused on project and contract management through multiple initiatives over the last several years. In 2006 the National Academy of Public Administration (NAPA) began a study of EM which included project and contract management as areas of focus. Reforms based on the NAPA recommendations advanced EM management discipline. Seeking to further advance the specific focus on project and contract management, EM partnered with USACE in February 2007. This initiative sought to build upon the NAPA actions and transform EM into a BIC project and contract management organization. EM also responded to the April 2008 DOE Root Cause Analysis with specific corrective actions. This EMCAP, originally issued by memo dated August 7, 2009, consolidated all completed and ongoing actions from NAPA, BIC, DOE Root Cause Analysis, and specific GAO findings into a single comprehensive action plan to guide and measure continuous project and contract management improvement. The internal and external reviews of the EM program have produced recommendations associated with the following:

- Developing and improving policies, protocols, guidance, and web information for EM project and contract management;
- Developing and improving tracking systems, project and contractor performance data quality, and project outcomes;
- Improving federal oversight of projects and contractors; and
- Improving processes and documentation of project CDs, award of new contracts, and processing of contract renegotiations.

As a result of the observations and recommendations from the reviews noted herein as well as greater EM management emphasis on acquisition and project management, several performance improvement initiatives have been completed and more are currently in progress. The EM acquisition and project management performance improvement initiative is focused on improving federal staffing, integrating project management and contract management, developing a project-oriented culture, maintaining project baselines, and implementing DOE O 413.3A more consistently. As such, EM has undertaken numerous actions and continues to pursue sustainable improvements. The following represents a summary of the more recent initiatives being undertaken by the EM organization.

Focusing, Aligning and Managing Contracts

More than 90 percent of EM's work is performed by prime contractors who are under contract to DOE to execute projects on schedule and within cost. Until the early to mid-1990s, the EM sites had been operational nuclear production sites and were managed by large M&O contracts on a "best-efforts" basis. EM implemented new contract strategies by moving to FAR Part 15 cost-

plus incentive fee (CPIF) and cost-plus award fee (CPAF) contracts. Currently, EM activities are being conducted through more than 40 prime contracts with a total value of more than \$40 billion. Thus it is imperative that EM exercises strong contract management once a contract is awarded. To accomplish this:

- EM has continued to expand the use of FAR Part 15 contracts for its capital projects (and other non-capital work), leading DOE in the use of FAR Part 15 contracts. EM's contracts, unlike typical M&O contracts employed by DOE, utilize a multi-year contract scope, schedule and cost approach. EM's approach requires DOE to be a "strong owner." EM's performance continues to improve and a number of complex, risky projects are being performed on or ahead of cost and schedule.
- EM is awarding smaller, more-focused contracts. At our largest sites, Hanford and SRS, work previously performed by three prime contractors will now be performed by five prime contractors. Each of these procurements underwent strong competition from a field of talented companies. Four of the five contracts were successfully awarded to new prime contractors rather than the incumbents. Following the award of the five major contracts at Hanford and SRS, EM has awarded 12 additional contracts ranging in value from \$25 million to \$2 billion at other sites.
- EM ensures all existing line item construction projects have specific FAR Part 15 contracts for each project. EM uses a combination of contract types to execute capital asset and cleanup projects including predominantly, CPAF and CPIF. The fees in CPAF and CPIF contracts are "at risk" at the outset of the contract, and the payment of fee depends on the contractor's performance. EM uses relatively sophisticated fee plans for its contracts. Approaches include "pure" CPIF fee plans, and hybrid CPIF and CPAF fee plans. For CPAF contracts, EM uses a combination of single and multi-year performance-based incentives to incentivize results.
- EM is using "lean management" principles to streamline the procurement life cycle by enlisting procurement teams to reduce contract lead times and to find more efficient methods and approaches in making contract awards. Lean management principles were applied to the East Tennessee Technology Park and the Portsmouth and Paducah D&D procurements. These principles will also be applied to upcoming procurement actions for the Idaho Cleanup Project, the West Valley Cleanup Project, and the Carlsbad Waste Isolation Pilot Plant contracts.
- EM has implemented a centralized strategy for acquisition through the establishment of the EMAC. A major objective of the EMAC is to implement a standardized acquisition planning process that will enable future cleanup acquisitions and contract transitions to be executed rapidly and efficiently.

- EM is identifying and selecting members of the Integrated Procurement Teams (IPTs), Source Evaluation Boards (SEBs), and Source Selection Officials early in the acquisition process. As each IPT is established, a formal memorandum is sent to the Deputy Assistant Secretary (DAS) for Acquisition and Contract Management to document the team members. Also, membership on the SEB is composed of personnel at the site, Consolidated Business Center (CBC), and HQ.
- EM conducts Procurement Strategy Panel meetings that enable EM Senior Managers, Office of Procurement and Assistance Management (OPAM), Office of General Counsel (GC), the Office of Small and Disadvantaged Business Utilization, and the Office of Engineering and Construction Management (OECM) to discuss all aspects of an upcoming procurement with the IPT early in the planning process to address issues that could potentially cause delays in the procurement.
- EM is implementing enhanced oversight of its contractors. This is achieved through collaboration with the OPAM. Upon award, contracts are administered by the operations and site offices. For smaller sites, contracts are administered by the EM CBC. To provide organizational continuity, HQ elements of the EMAC monitor post award performance and provide a conduit for post award communications with HQ senior management.

Proper Planning and Management of EM Portfolio

One of the recurring criticisms by the GAO is that EM projects have had cost increases and schedule delays due to poor planning, failure to follow DOE guidance, and ineffective project reviews. In the past, many EM projects were planned based on overly optimistic technical, regulatory and funding assumptions. That practice placed EM in a position of being unable to complete projects as planned. EM recognized these weaknesses and has been undertaking the following initiatives to rectify them:

- Re-planning the entire EM cleanup project portfolio (over \$150 billion) in 2007 and 2008, resulting in new independently reviewed and certified scope, schedule, and near-term execution baselines, reasonable Out-Year Planning Estimate Range (OPER) and life cycle costs, documented assumptions, an associated risk management plan, and an established starting point for each cleanup project.
- Restructuring the EM portfolio in 2009 and 2010 to separate operations activities and capital asset projects (CAPs), increasing the visibility of each project, establishing project requirements, and increasing management focus and oversight tools for each.
- Establishing requirements and certifying contractors' EVMS to be American National Standards Institute-748B compliant.

- Implementing a standardized analysis process which includes EV management data.
- Increasing the frequency of EM senior management reviews with the prime contractor and federal staff from quarterly to monthly. This allows the FPDs to leverage senior EM leadership so that execution issues can be quickly resolved to keep projects on track.
- Challenging the prime contractors to provide the requisite and expected capability so that EM projects are staffed with the best resources and seasoned managers.
- Implementing the Department of Defense and National Aeronautics and Space Administration Technology Readiness Levels to judge the relative maturity of new technologies prior to approving full-scale development.
- Implementing external technical reviews to ensure the timely resolution of engineering and technology issues early in the project's development.
- Established a cost-estimating Center of Excellence at the EM CBC in order to improve the quality of the program's IGCEs for its construction and cleanup projects, and operations activities.

New initiatives begun in 2009 and 2010 complement the restructuring of the EM portfolio. EM is in the process of completing a Corporate Work Breakdown Structure (CWBS) to standardize the collection of data across the complex for similar work, assist in the analysis of performance data, develop cost estimates, establish analytical building blocks, simplify budget preparation, and standardize the primavera enterprise architecture. The CWBS features:

- Four levels ranging from EM, to site location, and major project element (including geographical area, program area, and project baseline summary [PBS] representation of how the work will be performed)
- Analytical building block (ABB) which will represent a capital project or operations activity
- ABB will also represent the integrated priority list (IPL) used for budget formulation and to align the budget and project management functions
- CWBS dictionary sheets being prepared by the sites and will be completed by the end of October 2010.

Management of EM Portfolio with DOE Order 413.3A

EM follows the DOE O 413.3A requirements for all CAPs, and tailors the project management principles outlined in DOE O 413.3A for all operations activities. EM is the only DOE

organization that applies the 413.3A project management principles to its operations activities. This includes implementing a formal change control process, establishing contract performance baselines, maintaining life cycle costs, documenting regulatory requirements and execution strategies, and requiring performance measurement reporting and reviews. There are basically four differences in the way EM manages operations activities as compared to CAPs.

- Operations activities will have recurring senior management review in monthly and quarterly meetings, rather than CDs because these are ongoing activities that are already underway at each site and will continue until the cleanup activity is complete.
- Operations activities will be subject to an EM IPR which utilizes the same criteria and approach as an EIR.
- Operations activities will report both EV information¹² (as previously reported for PBSs) and metrics into EM's IPABS. The department's PARS system will focus on CAPs.
- Operations activities will prepare baselines, project management plans, and appropriate documents consistent with DOE O 413.3A. Documentation requirements of DOE Order 413.3A unique to CAPs will not be required because they do not apply.

CD-0 and CD-1 were waived when all of the initial PBSs Near Term Baselines (NTB) were approved (CD-2) in the 2007 and 2008 timeframe. This also included the determination that OPER was considered "reasonable" by the Acquisition Executive (EM-1). In addition, the approvals included the authority to continue the operations (CD-3) that were already underway.

The restructuring activities in 2009 and 2010 removed the CAPs from the PBSs and aligned them with their actual project life-cycle phase i.e., the appropriate critical decision. Each CAP is required to meet the DOE O 413.3A requirements as a standalone project, providing EM and DOE with a more visibility as opposed to a mixture of CAPs and operations activities under one large PBS. Management and oversight of the operations activities benefits as well by becoming separate, standalone scopes of work where unique and appropriate performance metrics and milestones can be established, long continuous activities can be bound by the contract period of performance, and controlled on an annual basis, based upon the funding provided. EM will maintain the life-cycle cost in the EM liability and cost modules of IPABS. For operations activities, the contractors will:

- Be required to report progress against contract performance-based incentives, annual metrics and milestones.

¹² EV reporting in FY2011 will be evaluated for continuation or modification for FY2012 and beyond.

- Maintain a contract performance baseline, report EV data, and provide current resource-loaded schedules on a monthly basis.
- Be subject to an IPR to ensure the baseline meets the requirements of the contract.
- Establish a formal change control process to maintain lifecycle cost integrity.
- Provide monthly status reports to the FPD or equivalent.
- Apply and maintain an EVMS, provided the DOE O 413.3A requirements for CAP implementation are met. Currently 77 percent of the projects have been certified compared to the target of 75 percent for FY 10.
- Develop and maintain key documents such as a risk management plan, project execution/management plan, annual operating plan, lifecycle cost plans, hazard analysis plan, regulatory plans, safety and health plans, and any other operating program/activity specific requirements or documents.

FPDs, or their equivalent, will be assigned to each operations activity and are expected to:

- Be qualified and equivalent to a certified FPD; certification by the Project Management Institute is under consideration for equivalency for operations activities
- Establish an IPT
- Report status monthly into IPABSs
- Prepare Quarterly Project Review (QPR) briefings and present to EM HQ senior managers
- Oversee the contractors' performance to ensure they meet contract and EM requirements.

Routine Contractor Reporting

Contractor monthly reports vary in size and content depending on the complexity of the project or operations activity, and can range from 20 to 400 pages. The Contract Performance Report is a primary data output from the contractor's EVMS and the reporting requirements are defined in the contract. Formats one, three and five will be required, at a minimum. The five formats are described below.

- Format one provides basic contract information such as contract number, contractor name, target cost, fee, contract budget base, authorized unpriced work, etc., the earned value data by month, and cumulative to date by Work Breakdown Structure (WBS) element. The budget at completion, estimate at completion, variance at completion, and management reserve are also provided.

- Format two contains the same information as format one by organization instead of WBS.
- Format three identifies any change control actions, replanning of the baseline by month for the next six months, and is at summary level for the remainder of the baseline.
- Format four is manpower utilization in man hours by organization.
- Format five identifies the cost, schedule, and at completion variances for the month and cumulative to date that breach pre-established thresholds, and provide an explanation for the cause of the variance, corrective actions to address the variance, and the impacts to the other scopes of work, end date, and cost.

In addition to CPR data and a discussion of progress and accomplishments, the reports include safety statistics, milestones and metrics status, look-ahead activities, schedules, risk mitigation strategies, procurement activity, and subcontractors' performance. The FPD and IPT utilize the information to develop an independent assessment of the project or operations activity status each month to report to senior management.

Enterprise System Enhancements for Project and Operations Activities

The purpose of the IPABS Information System is to support EM with planning, budget formulation and execution, project execution, and project management information. It was created in 1999 to eliminate redundant data entry, accurately collect data required for the EM business processes, maintain one centralized repository for all EM data, and provide one set of consistent data for EM and the DOE. IPABS has grown and expanded from a budget planning and execution system to a total CAP and operations activity management system. The data reported in IPABS is provided by the contractor and reviewed by the FPD and supporting project controls staff. Once reviewed and verified, it is entered into IPABS.

As the EM project management philosophy has evolved into a mature enhanced system, IPABS has been expanded to accommodate new requirements, improved reporting information, and expanded performance data. For example, when EM declared in 2007 that all PBSs would be projects, the IPABS reporting level was established at the PBS level and the PBS life-cycle cost was divided into three parts: prior year actual costs, the near-term baseline (NTB), and the OPER. Now that EM has restructured the EM portfolio (the former PBSs) into smaller, better defined capital asset projects and operations activities, the IPABS reporting level is established at the sub-PBS level or at the individual capital asset or operations activity levels. Each capital asset project will stand on its own and be subject to the requirements of DOE Order 413.3A, including establishing the baseline at CD-2. Operating activities will correspond to the contract period of performance and be modified annually based on the funding levels. The NTB and

OPER concepts will be maintained as part of the life-cycle cost. A more complete description of the IPABS system is included in *Appendix C*.

The e-Portal project will be housed on the EM Communication Portal and is designed to provide all EM employees a wide range of EM program and project management data and information. The first phase was completed in early August 2010 and provides performance metrics, financial profiles, and footprint reduction statistics for the EM complex. Phase two is under development and is scheduled to be completed in October 2011. The e-Portal dashboard will be expanded to include the new restructured EM portfolio of CAPs, operations activities, ARRA information and performance data, QPR briefings, safety data, risk management, EM strategic goals, most of the summary IPABS data and information, contracts status, budget profiles, and other EM program and project information.

In May 2010, EM chartered the Corporate Information System Modernization Initiative team to establish a near and long term enterprise architecture vision. The team is investigating alternatives to electronically integrate various data and information through available technology to maximize efficiency, minimize duplication, and improve data quality; ultimately enhancing management of EM capital asset projects and operations activities.

Controlling Project and Contract Baselines

DOE Order 413.3A establishes the deviation thresholds for cost, schedule and technical breaches that require the Deputy Secretary's approval for CAPs to continue. The change control threshold levels for the Assistant Secretary, Site Manager, FPD, and contractor are defined in the Project Execution Plan (PEP), and are supported by a change control board. All changes control actions require complete documentation and explanation of the change action, approvals, and implementation, and the contractor is required to maintain a current change control log. EM has established a change control board with the Assistant Secretary as the chairperson.

Change control for operations activities is also a fully documented approval process with thresholds established in the Project Execution Plan (PEP) or Project Management Plan (PMP). An Operations Activity Change Control Board is being established along with the processes and procedures, modeled after the CAP change control. The sites and contractors will utilize a similar process for approving changes at their level, and the contractors will maintain a change control log to maintain the contractor baseline and the lifecycle cost plan in configuration control. The only differences for operations activities are: change actions, regardless of dollar value, will not require the Deputy Secretary involvement; EM will not maintain a funded contingency; and annual adjustments will be made based upon funding levels.

Increased Federal Project and Contract Management Oversight

NAPA clearly noted that the EM program is insufficiently staffed to oversee its contractors' activities. The NAPA panel also noted that other organizations with similar missions as EM, for

example the Naval Facilities Engineering Command and USACE, have two to six times as many federal personnel overseeing clean-up work. In addition, they noted existing EM personnel need to have their skills enhanced to meet the demands of its program planning and oversight role. GAO has similarly noted that EM still lacks the capacity (that is, the people and other resources) to address the program risks. EM has aggressively moved to enhance the numbers and skills of its workforce with specific emphasis on contract and project management, safety, and QA personnel, including:

- Training and certifying all FPDs through the PMCDP and the FPD Certification, and Contracting Officers through Acquisition Professional Certification Programs. At the end of FY 10, nearly 99 percent of EM's projects are being led by certified FPDs and 94 percent are at the appropriate level.
- Certifying approximately 86 percent of all EM acquisition professionals (1102s) through the Acquisition Career Management program.
- Working through the EM Project Management Partnership with USACE to conduct independent staffing analyses. Based on these analyses, a report¹³ was provided from EM to the Deputy Secretary advising that EM staffing was sufficient with planned support contracts and relationships.
- Increasing its on-board count during the past two years by approximately 300 people, from 1,370 to nearly 1,680, most accounted for in the areas of project and contract management, safety, engineering and quality assurance.
- Placing two new support contracts (and continuing an existing one) with USACE to augment project management, project control and quality assurance staff. These contracts have provided more than 90 FTE staff annually since 2007.
- Developing an agreement with the Seaborg Group for an EM Technical Expert Group (TEG) to provide one-stop, rapid access to high caliber technical expertise in support of design reviews and technical analyses.
- Conducting rigorous case study lessons learned training and partnering with the Defense Acquisition University to gain understanding of how another major government agency (i.e., Department of Defense) develops and trains its executives in acquisition and project management.
- Supporting just-in-time training courses for IPTs to increase Performance-Based Acquisition (PBA) awareness and implementation.

¹³ Staffing Capacity for Capital Asset Projects, June 1, 2010

EM's improvement initiatives align with and complement other ongoing DOE contract and project management corrective measures, including improving front-end project planning; enhancing the federal contract and project management workforce; improving project risk assessment, communication and management; aligning and integrating budget profiles and project cost baselines; improving IGCEs; improving acquisition strategies and plans; improving project oversight and management; and improving adherence to project management requirements.

American Recovery and Reinvestment Act Execution

The ARRA provided EM with \$6 billion in February 2009 to support job growth and advance the EM mission, especially reduction of the EM footprint and completion of several legacy site missions. With an annual budget of just under \$6 billion, this funding presented an unprecedented opportunity and challenge for the EM program. Much of the challenge for ARRA came from the accelerated schedule for start of work (to accelerate the job growth), and also completion of projects within two years. Requirements for unprecedented transparency and sharing of information and status with the public and stakeholders further challenged EM. These ARRA challenges also provided a unique opportunity to test the contract and project management policies, processes and procedures implemented through the various improvement initiatives undertaken from 2004 to 2009.

EM was up to the challenge. From the start, EM established a more aggressive completion goal of 2012 as compared to the 2015 deadline per the ARRA legislation. During the ARRA startup, EM led the DOE in obligation of funds, costing of funds, and transparent reporting of jobs and performance. EM risk management practices and communication techniques with stakeholders, regulators and unions, were recognized by the Chief Financial Officer and used as models within DOE. The success EM demonstrated in execution of the ARRA effort validates that the improved baselines, cost estimates, schedules, contract structures, and procedures developed through the various initiatives were effective. The success EM has achieved, including rapid implementation on the \$6 billion of ARRA scope, could not have been achieved without the successful implementation of the multiple improvement initiatives described above.

EM also used ARRA as an incubator for further advances in contract and project management. Most notable was the separation of operations activities from capital projects to provide greater clarity and focus for management and oversight under the unique ARRA constraints. The EM Framework document specifically developed for the EM ARRA scope described the basis and rationale for the action.¹⁴ The ARRA success proved the validity of the benefits to be gained from clear separation of capital project work from operations activities, and thus led to the decision to take similar action to improve management and oversight of the entire EM portfolio.

¹⁴ EM Recovery Act Program, Portfolio Management Framework, July 10, 2009.

The EM ARRA program also increased the need for prompt and effective learning both within and between sites. A lessons-learned program was developed for EM ARRA work and was quickly supported by the contractors across the EM complex. Along with publication of lessons-learned and discussion in monthly reviews, three Information Exchange forums have been conducted to date. The lessons-learned approaches used for ARRA are being considered for direct application to the entire EM program.

3.0 Project Performance and Metrics

Background of Recent Program and Project Evolution

The EM program has been undergoing evolutionary improvements in contract and project management for a number of years. In the 2004 Congressional Budget Request, EM embarked on accelerated risk reduction clean-up initiatives which were premised on a set of management reforms. These reforms, although separate and distinct, were not intended to be mutually exclusive of each other and, taken together, were to create a synergy and catalyst that would facilitate success in accelerating risk reduction and cleanup at reduced life-cycle costs.

- The first management reform was to build a high-performing culture which would attract and retain talented managers and staff who would deliver sustained performance excellence.
- The second reform was to develop and implement an acquisition strategy which would drive contract performance.
- The third reform was the development and implementation of a new budget structure to support the budget planning and execution of the accelerated risk reduction and closure initiative. This new structure would highlight the focus on completion or endpoint, clearly delineate how resources will be utilized, afford flexibility to accountable managers, and communicate the goals and objectives that EM values. This structure would clearly identify scope and resources that directly support the core accelerated clean up and risk reduction mission from those that do not.
- The fourth reform was the implementation of a strict configuration management system that baselines a number of key critical program elements. Examples of some of the key elements include the Performance Management Plans, EM corporate performance metrics, contract performance measures/incentives, and life-cycle costs. Strict change control and monitoring of these key elements would facilitate a high confidence level that the goals and direction of the accelerated clean-up initiative were being met.
- Finally, the fifth reform in support of the President's Management Agenda provided a new structure to support the integration of performance and budget for the EM program. The details of the new budget structure, including the new PBSs, were presented in the FY 04 budget.

This PBS structure provided a framework for aligning the work and funding with the key strategic areas for accelerating the completion of the EM cleanup mission. It also provided a consistent framework across the complex. The major PBSs were:

- Nuclear Material Stabilization and Disposition
- Spent Nuclear Fuel Stabilization and Disposition
- Radioactive Liquid Tank Waste Stabilization and Disposition
- Solid Waste Stabilization and Disposition
- Nuclear Facility D&D
- Soil and Water Remediation
- Operate Waste Disposal Facility

On March 20, 2007, James A. Rispoli, Assistant Secretary for Environmental Management, provided the following in his statement on the FY 07 Congressional Budget Request for EM. This was given before the Subcommittee on Strategic Forces, Committee on Armed Services, U.S. House of Representatives.

“One of my goals as Assistant Secretary is that at least 90 percent of our 'projectized' portfolio will meet or exceed our cost and schedule targets. We have begun the process of integrating our management tools into our business processes. Over the past year, I have personally conducted Quarterly Performance Reviews of all EM projects with our leadership team. I report to you that we have showed progress, but we have yet to realize the full potential of implementing our management systems and better applying risk management principles—that is, identifying project uncertainties and developing mitigation measures. Some of our projects have fallen short of expected performance, but we are engaging our field management contractors with state-of-the-practice project management methods.”

Two of the key actions taken were to ensure CD-2/3, *Approve Performance Baseline*, was accomplished for the NTB under each PBS, and to determine if the OPER was reasonable, by the end of the second quarter of FY 08. As part of the CD-2/3 approval, OECM conducted an EIR and rendered a certification of the scope, cost and schedule for those baselines over \$100 million.. For those baselines under \$100 million, EM conducted an IPR. EM completed the CD-2/3 approval for each PBS by March 30, 2008.

With the completion of the CD-2/3 approvals, additional confidence was placed in the baselines for each PBS. Thus, the EVMS data for each PBS could now provide a key indicator of PBS performance. OECM's PARS provided the department with a common structure for reporting the current status that was timely, accurate, complete, and reliable. The fundamental approach for PARS is based on EVMS standards. The EVMS provides cost and schedule performance metrics that report progress against an integrated baseline. These metrics are effective summary level project measurements that senior executives can use to assess current project and program status.

Recent Cleanup Project Performance Trends

Given the background of program and project definition described above, one approach to evaluating the performance of EM's projects is to review the EV performance of each PBS over the past three years. We have conducted an analysis of the PBSs as defined prior to the 2010 restructuring to determine the performance results and any trends when analyzed according to standard EV indices, CPI and SPI. The data was extracted from the PARS system to maintain consistency in definition of PBSs between years. The analysis utilized cumulative EV indices and covered three years, with data points selected from May 2007, May 2008, May 2009, and February 2010.¹⁵ Changes to the PBS baselines were also checked to ensure graphs were reflecting performance comparisons rather than the impact of multiple baseline changes. Although many baseline changes were processed, most were to address funding shifts between years due to budget adjustments. Changes impacting the near term baseline cost or schedule were limited to nine PBSs and \$300 million, or 0.6% of the total portfolio amount.

Figure 3-1 shows the total dollar value of the PBSs, with vertical bars identified by ranges of cumulative CPI value and then grouped by year. The number of projects represented within the vertical bar is shown parenthetically under the bar. Comparison over the three years shows a substantial majority of the PBSs consistently with CPI values above 0.9, in the ranges that are rated as "Green" in performance analysis. Additionally, the trend from 2008 to 2010 of PBSs with cumulative CPI above 1.0 (combining the "1.0 to 1.1" and the "above 1.1" ranges) is upward. Correspondingly, the trend for PBSs below 0.9 (combining the "0.8 to 0.9" and "below 0.8" ranges) is decreasing. From a cumulative CPI basis, the performance across PBSs since 2007 has been significantly above 0.9, with an improving trend from 2008 to 2010.

Figure 3-2 shows total dollar value of the PBSs, with vertical bars identified by ranges of cumulative SPI value and then grouped by year. The number of projects represented within the vertical bar is shown parenthetically under the bar. Comparison over the three years shows a substantial majority of the PBSs consistently with SPI values above 0.9, in the ranges that are rated as "Green" in performance analysis. The positive trend from 2008 to 2010 of PBSs with cumulative SPI above 1.0 (combining the "1.0 to 1.1" and the "above 1.1" ranges) is even more evident than with CPI. Correspondingly, the trend for PBSs in all ranges below 1.0 (combining the three lower ranges) is strongly decreasing. From a cumulative SPI basis, the performance across PBSs since 2007 has been significantly above 0.9, with a dominant improving trend from 2008 to 2010.

¹⁵ February 2010 PARS data was the last month before substantial changes began to take place in the PBS definitions due to restructuring of the EM portfolio, although even in February some data was unavailable as evidenced by the reduction in number of projects represented. The first iteration of analysis used the May 2010 data, but the amount of missing PBS data due to restructuring significantly degraded the value of the comparison.

Figure 3-1. Cumulative CPI Values for PBSs, 2007 to 2010

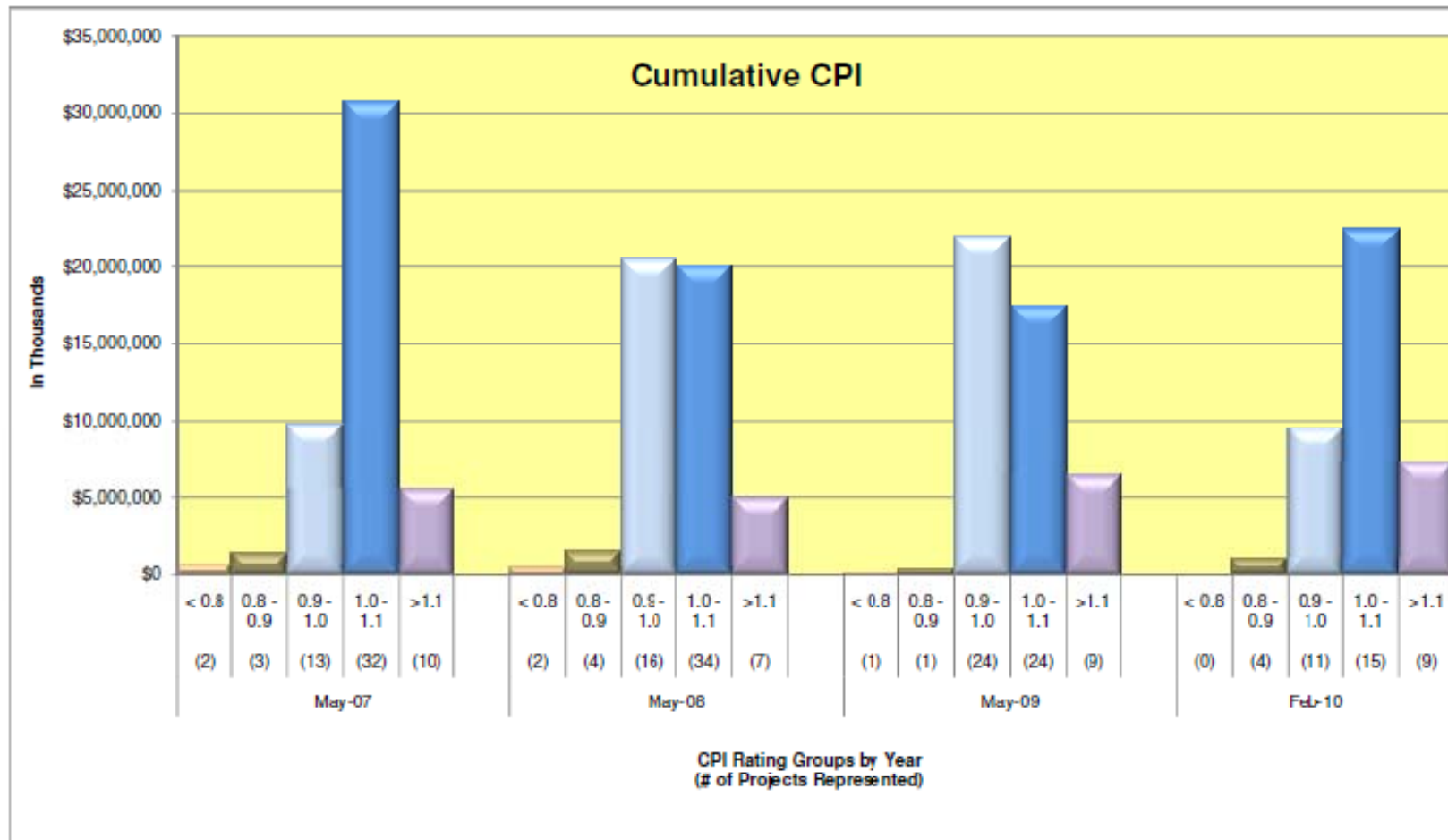


Figure 3-2. Cumulative SPI Values for PBSs, 2007 to 2010

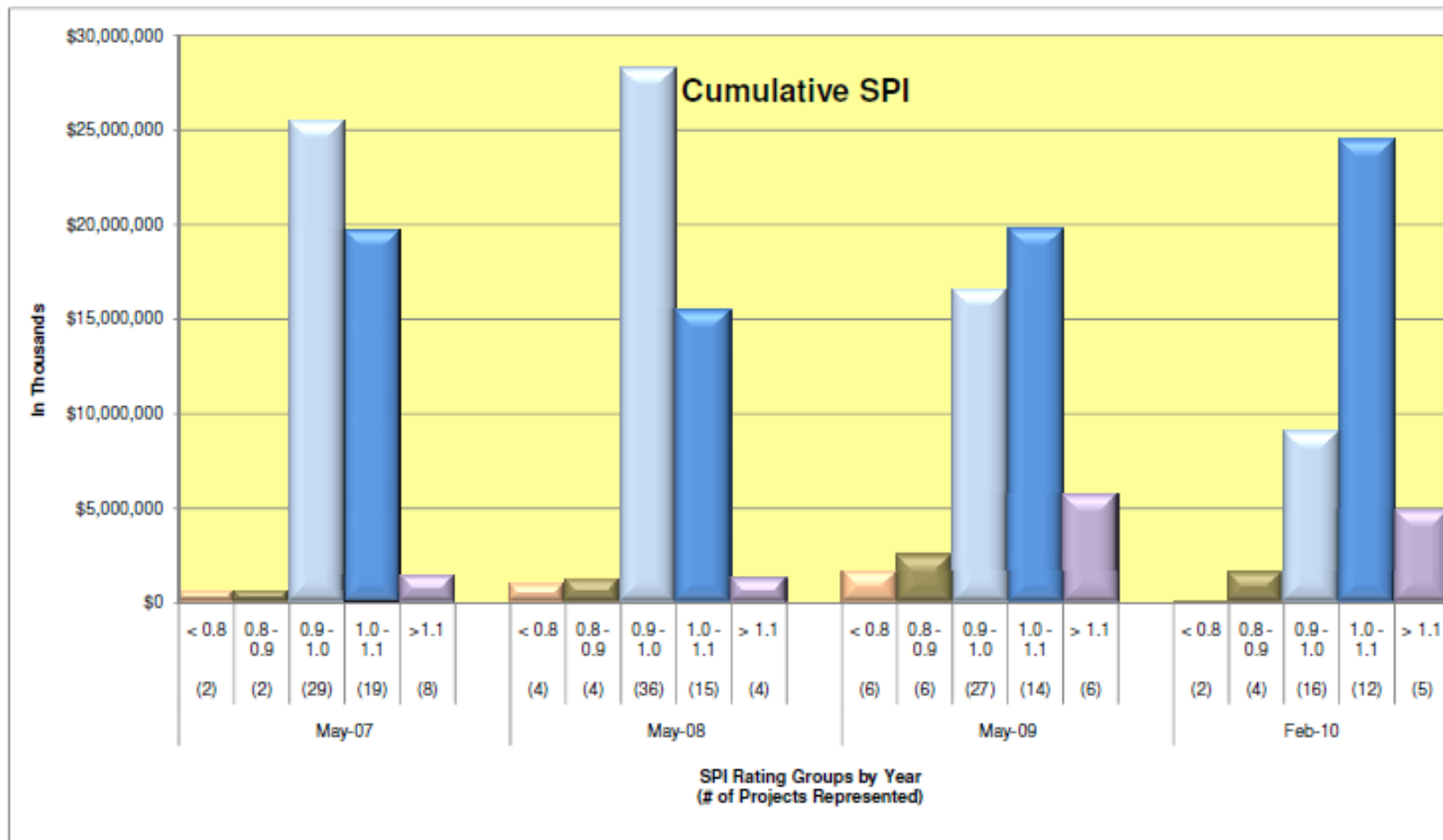


Figure 3-3. OECM Project Rating Trend

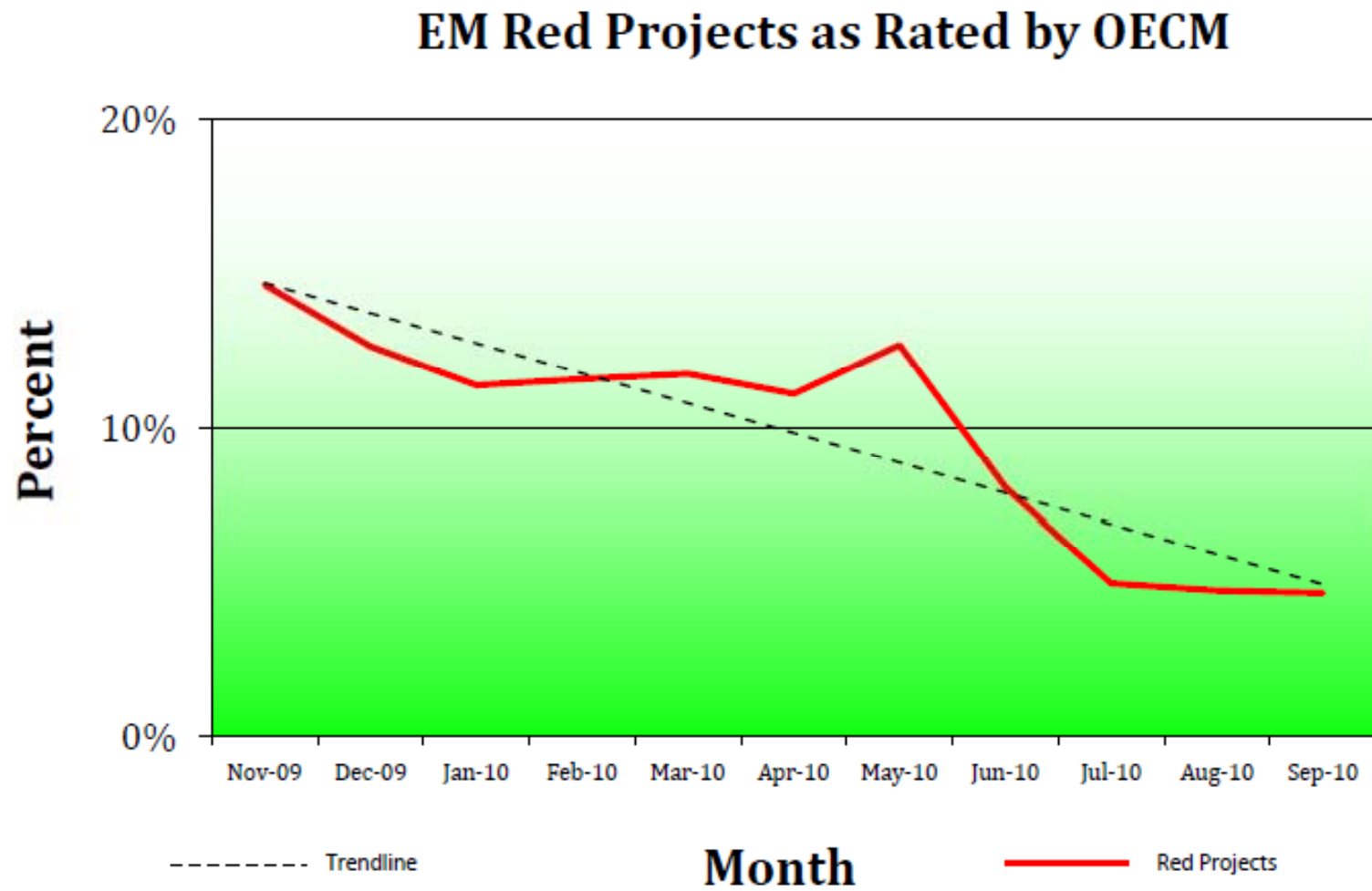
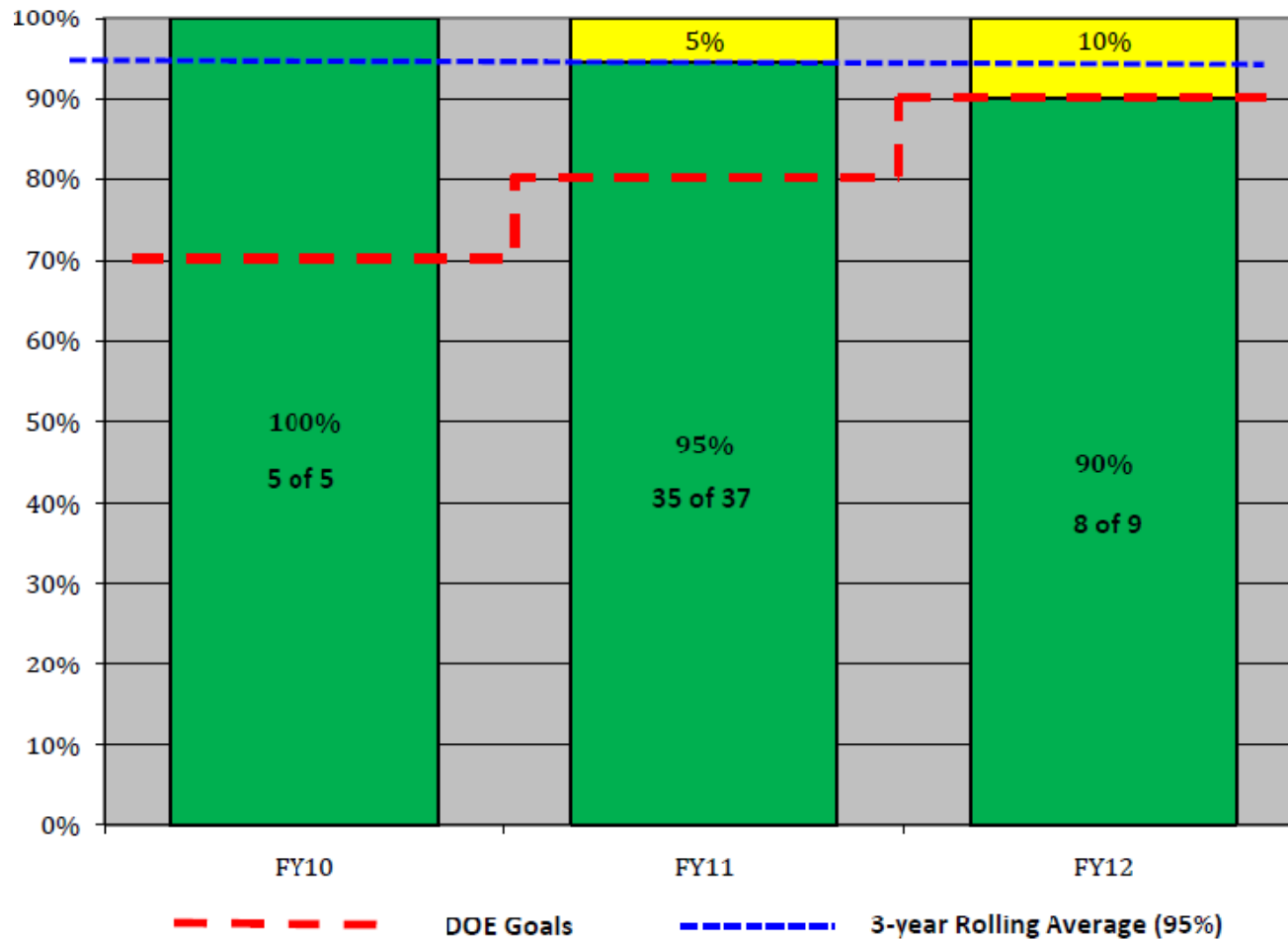


Figure 3-4. EM Project Completions Post-Restructuring

EM Cleanup Project Success Projections



OECM has reviewed the PBSs as capital projects and assigned their own green, yellow, or red rating as part of a monthly report to the Deputy Secretary for overall DOE project performance. These reports focus on the “yellow” and “red” under-performing projects. EM performance has also been positive against this criteria, with a strong downward trend in projects rated “red” from 2009 to 2010 (Figure 3-3).

Project Metrics

The EM organization uses two overarching performance goals to monitor progress towards achieving success for CAPS: the completion of capital asset line item projects and EM cleanup projects. Both performance metrics, defined in Table 3-1, are consistent with the metrics established in the department’s contract and project management RCA Corrective Action Plan. In addition, in accordance with the DOE RCA CAP, EM has revised the EM clean-up metric to be identical to capital line items.

Table 3-1. Overall EM Acquisition Management and Project Management Performance Metrics and Targets					
Contract/Project Management Performance Metrics	FY09 Target	FY09 Actual	FY10 Target	FY10 Actual	FY11 Target
Capital Asset Line Item Projects: Capital asset line item projects will be completed at CD-4 within the original scope baseline and within 10 percent of the original approved cost baseline (CD-2), unless otherwise impacted by a directed change. Baselines impacted by a directed change will have adjusted baselines established. On a program portfolio basis, 90 percent of DOE line item projects will meet the project success definition benchmark.	80% ¹⁶	N/A ¹⁷	85%	N/A	90%
EM Cleanup (Soil and Groundwater Remediation, D&D, and Waste Treatment and Disposal) Projects: EM cleanup projects will be completed at CD-4, within the original scope baseline and within 10 percent of the original approved cost baseline (CD-2), unless impacted by a directed change. On a program portfolio basis, 90 percent of EM cleanup projects will meet the project success definition benchmark. ¹⁸	Establish Baseline	Establish Baseline	70% ¹⁹	100%	80%

EM includes projections of project performance at completion as an element of the project review process (Figure 3-4). The criteria for success at completion for EM cleanup projects is shown in Table 3-1. Considering the cleanup capital asset projects post-restructuring, five of five projects which were completed in FY 10 (100% of the population against a target of 70%) met

¹⁶ The performance targets are based on a 3-year rolling average of projects reaching CD-4.

¹⁷ N/A indicates no projects achieving CD-4 to allow measurement against the metric. FY 08 was 100%.

¹⁸ The EM Cleanup Project performance metric was revised in March 2010 to be identical to the Capital Asset Line Item Project performance metric.

¹⁹ The 3-year rolling average will be established in FY 2010 (the first 3-year’s worth of data will be available) in concert with revising the EM Cleanup Project performance metric.

the criteria. EM projection for FY 11 is that thirty-nine of forty-one (95% of the population against a target of 80%), and for FY 12 is that eight of nine (90% of the population against a target of 90%) will meet the criteria. Such performance would demonstrate three consecutive years of successful performance against the criteria, and a three-year rolling average of 95 percent success²⁰.

Although this summary covers only a few key aspects of EM capital projects and PBS performance, the analysis reflects overall positive results and clear indication from the upward trends that the improvement initiatives in 2007, 2008 and 2009 have had sustainable, positive impact on EM performance.

The restructuring of the EM portfolio in 2010 essentially eliminated the PBS reporting in PARS, replacing it with reporting for specific capital projects. Operations activities, previously imbedded within the PBSs, will now have specific reporting in IPABS. This update is therefore the last which will provide EV comparisons for the PBS portfolio structure. Capital project performance with data drawn from the enhanced PARS II database will continue. Operations activities will be evaluated with a greater focus on metrics, as detailed below.

Operations Activity Metrics

By their nature, operations activities continue from year to year using established and repeatable production processes. Equipment and staffing levels remain relatively consistent from month to month with these activities generally being described as “level of effort”. EV data is collected and reported in IPABS for operations activities, but because of the level-of-effort nature the EV data provides less useful management information than for capital projects.

Metrics are far more useful for management analysis and accountability for operations activities. The EM program has established corporate metrics which have been used for many years and have been especially useful in reporting to Congress, OMB, and external stakeholders. Following the restructuring of the EM portfolio, the corporate metrics were reviewed to identify the most appropriate and useful metrics for the restructured operations activities. The metrics shown in Table 3-2 below will be used for reporting in FY 11. Specific target levels for FY 11 and beyond are being developed as part of the “Journey to Excellence” process and will be made available on the EM Portal as they are determined. Also, a framework document patterned after the one created for ARRA is in final development and approval to provide clear distinction between the capital asset projects and the operations activities, and provide the foundation for the processes and procedures tailored to the operations activity oversight.

²⁰ Although the metric was established in 2008, FY08 and FY09 were used to establish the baseline for measurement, and thus did not have a goal or actual performance recorded.

Table 3-2. Operations Activity Performance Metrics as of August 2010	
(Reported 4th week of month; actuals as of 3rd week of month; against annual target)	
DESCRIPTION	METRIC
Geographic Sites eliminated	Number of sites
Plutonium Metal or Oxide packaged for long-term storage	Number of Containers
Enriched Uranium packaged for disposition	Number of Containers
Plutonium or Uranium Residues packaged for disposition	Kilograms of Bulk
Depleted and Other Uranium packaged for disposition	Metric Tons
Mill Tailings disposed	Tons, short
Depleted Uranium Hexafluoride processed	Number of Cylinders
Tank Waste in inventory eliminated	Thousands of Gallons
Liquid Waste Tanks closed	Number of Tanks
High-Level Waste packaged for final disposition	Number of Containers
Spent Nuclear Fuel packaged for final disposition	Metric Tons of Heavy Metal
Transuranic Waste shipped for disposal	Cubic meters – Contact-Handled (CH)
Transuranic Waste processed for certification	Cubic meters – CH (submetric)
Transuranic Waste certified for final disposal	Cubic meters – CH (submetric)
Transuranic Waste shipped for disposal	Cubic meters – Remote-Handled (RH)
Transuranic Waste processed for certification	Cubic meters – RH (submetric)
Transuranic Waste certified for final disposal	Cubic meters – RH (submetric)
Low-Level and Mixed Low-Level Waste disposed (legacy and ongoing operations; excludes remediation waste)	Cubic meters
Material Access Areas eliminated	Number of Material Access Areas
Nuclear Facility completions	Number of Facilities
Radioactive Facility completions	Number of Facilities
Industrial Facility completions	Number of Facilities
Remediation complete	Number of Release Sites
Site Remediated/Footprint reduction	Square miles
D&D Debris and Remediated Soil disposed	Cubic Meters - MLLW, LLW, Industrial (sub-metric)
Groundwater Wells installed	Number of wells (sub-metric)
Number of wells completed)	Number of wells (sub-metric)
Facility Square Footage de-inventoried	Square feet (sub-metric)
Facility Square Footage demolished	Gross Square feet (sub-metric)

Performance metrics are examined and re-adjusted as EM executes the cleanup program to reflect lessons learned on how to conduct the cleanup more efficiently. For example, as technologies have evolved to allow EM to close tanks more efficiently, EM has negotiated with the current Savannah River contractor who manages the tank farm to increase the number of tanks to be closed during the current contract period.

The metrics for operations activities are also included with the FAR Part 15 contract terms to provide incentives for improved performance. These incentives are typically reviewed on an annual basis and adjusted as appropriate. Specific Performance-Based Incentives (PBIs) provide a direct contractual tie between operations activity metric targets and contract requirements.

Organizational Performance Metrics and Targets

The metrics included in Table 3-3 are EM's metrics to measure progress towards achieving improved contract and project management. At the beginning of FY10 these end-state goals were analyzed and re-aligned to specific Performance Goals for the Principal Deputy Assistant Secretary for EM (EM-2). These performance goals then flowed into specific annual performance evaluation plans for EM senior managers, thus providing direct linkage to contract and project management performance metrics. Although not identical to the secondary metrics reflected in the original EMCAP Table 3-2, this revision addresses similar metrics and more directly advances contract and project management performance because of the direct linkage to senior management performance plans. The performance goals will be updated for FY 11 as part of the overall EM goal setting and performance management process.

Table 3-3. Status Report on EM FY 10 Performance Goals as of 9/30/2010

EM Goals	Lead Office	Scheduled Completion Date	Forecast (F) or Actual (A) Completion Date	Status 9/30/10 and Issues	Score
Complete 75% of scheduled oversight safety, quality assurance, and security assessments (includes ARRA projects) monitoring on quarterly basis, meeting DOE O 226.1 requirements	EM-20	9/30/2010	9/30/2010 (A)	Offices reported between 87% and 100% of scheduled assessments completed.	Complete
Improve corporate safety performance trends using the EM normalization statistical analysis method to achieve a "blue" or "green" overall score 50% of the time for 75% of the site contractors in FY 10	EM-20	9/30/2010	9/30/2010 (A)	Through August (11 months of normalized ORPS scoring for FY10), 100% of contractors scored either blue or green 50% of time.	Complete
Ensure 90% on-time completion of corrective actions identified in the DOE Corrective Action Tracking System (CATS)	EM-20	Ongoing	9/30/2010 (A)	100% on-time completion of corrective actions in DOE CATS. All EM corrective actions in CATS have been closed.	Complete
Maintain an EM average Total Recordable Case (TRC) rate of less than 1.5, including ARRA work	EM-20	Ongoing	9/30/2010 (A)	The average TRC rate reported was less than 1.5 each month. The actual rate through 3rd Qtr FY10 TRC rate = 0.83.	Complete
Maintain Days Away from work, Restricted work, or job Transfer (DART) rate of less than 0.7, including ARRA work	EM-20	Ongoing	9/30/2010 (A)	The actual DART rate reported was less an 0.7 each month. Through 3rd Qtr FY10, the DART case rate = 0.38.	Complete
Restructure/Implement HQ organization's new business model to strengthen support of field mission priorities (11 sites) by 12/31/09	EM-4.1	12/31/2009	3/30/2010 (A)	COMPLETE. Actual date of March 30, 2010.	Complete
Complete staffing for 80% of 22 key management positions within new organization by 6/30/10 and 100% by 9/30/10	EM-70	6/30/2010	9/30/2010 (A)	Of the 22 key HQs management positions, 22 will be processed by 9/30/10. The scheduled completion date was 6/30/10.	Complete
All major sites (7) complete self-assessments in multiple functional areas such as safety and QA	EM-4.1	11/30/2009	3/30/2010 (A)	COMPLETE. Field Site Self Assessment - HQ analysis and scoring of field input have been completed.	Complete
Evaluate/use results of self-assessments to validate delegated authorities for these sites, meeting DOE O 226.1 requirements and Secretary Management Principles by 3/31/10	EM-4.1	6/30/2010	6/30/2010 (A)	COMPLETE. All delegations have been updated as needed. Additional requested delegations still need to be addressed as part of self assessment close-out.	Complete

EM Goals	Lead Office	Scheduled Completion Date	Forecast (F) or Actual (A) Completion Date	Status 9/3010 and Issues	Score
Ensure timely delivery of all formal Defense Nuclear Facilities Safety Board commitments by maintaining an 80% on-time status for EM/HQ deliverables, consistent with requirements for responsiveness in DOE O 140.1	EM-20	Ongoing	9/30/2010 (A)	Out of 23 DNFSB commitments for this fiscal year, they were all completed, with over 95% on-time status deliverables. We are waiting on confirmation that 2001-1 annual update was completed by SRS. Assuming that was completed, we have no overdue items. We are revising 2001-1 IP per Board's letter of May 27, 2010. Annual update of 2001-1 will be superseded by new IP due in November.	Complete
Ensure at least 65% of projects have adequately staffed IPTs by end of FY10	EM-10	9/30/2010	9/30/2010 (A)	COMPLETE for FY10. The estimate of 77% for staffing was based on existing data from the PBS project structure.	Complete
Achieve certification of 65% of FPDs by the end of the 4Q FY10.	EM-10	9/30/2010	9/30/2010 (A)	COMPLETE for FY10. 94% of FPDs are currently at proper certification level. FPD assignments memo based on EM restructuring is in process and will improve percentage.	Complete
Ensure at least 90% of contractors (contracts over \$20/\$50 million, self-certified and DOE certified, respectively, and extending beyond 9/30/2010), have a certified EVMS	EM-10	9/30/2010	9/30/2010 (A)	EVMS certifications met the metric by 3Q FY 10 and is on track. The current percentage is 85%. Savannah River Remediation certification is scheduled to be COMPLETED on September 30, 2010, at which time the percentage of certified contractors will increase to 94%.	Complete
Complete 70% of cleanup projects within 90% of original scope & 10% of the original approved baseline cost by end of 2Q FY10	EM-10	3/31/2010	3/31/2010 (A)	100% (3 of 3) of Cleanup projects completed by end of 2Q FY10 were within 80% of original scope and 125% of original approved baseline cost.	Complete
Maintain near-term and out-year baseline validations for 80% of EM projects	EM-10	3/31/2010	3/31/2010 (A)	COMPLETE. 100% of EM projects have validated baselines and met the metric by 2Q FY10.	Complete
Restructure 90% of EM portfolio to optimize management of capital versus operating projects by the end of 2Q FY10	EM-10	3/31/2010	4/27/2010 (A)	COMPLETE. 100% of PBSs have been restructured in base and 100% in ARRA.	Complete
Maintain less than 15% of projects coded as red by the OECM in order to meet the DOE Corrective Action Plan metrics	EM-10	Ongoing	9/30/2010 (A)	COMPLETE for FY10. OECM tracks this goal for a total of 64 EM projects in Draft August 2010 report; 7 out of the 64 projects (11%) are coded red.	Complete

EM Goals	Lead Office	Scheduled Completion Date	Forecast (F) or Actual (A) Completion Date	Status 9/30/10 and Issues	Score
Conduct at least one CPR for WTP, SWPF and IWTU by 5/31/10 to strengthen oversight/management of EM construction projects to keep within cost and schedule	EM-10	9/30/2010	7/30/2010 (A)	COMPLETE. Follow-up WTP CPRs were conducted in November 2009 and in May 2010. Follow-up SWPF CPRs were conducted in October 2009 and in July 2010. A CPR was held at IWTU in November 2009 and in May 2010.	Complete
Achieve EM overall prime contract small business goal of 5.0% in FY 2010	EM-80	9/30/2010	9/30/2010 (A)	As of 9/15/10, based on data from the Information Data Warehouse, EM small business obligations total \$618.6 million (11.2%) on a base of \$5.5 billion.	Complete
Execute strong contract management by meeting 70% of forecasted key acquisition planning milestones	EM-80	9/30/2010	9/30/2010 (A)	As of 9/15/10, 23 of 29 procurement milestones have been met, resulting in an achievement rating of 79%.	Complete
Ensure 83% of contracting series workforce has appropriate certification	EM-80	9/30/2010	9/30/2010 (A)	87 of 101 (86%) of 1102 contracting series staff are certified.	Complete
Adjust newly awarded contracts within 60 days after transition ends, per Federal Acquisition Regulations	EM-80	Ongoing	9/23/2010 (A)	As of 9/23/10, 8 of 8 contracts adjusted. Two contracts outside 60 day window due to insufficient contractor proposals.	Complete
80% of change orders completed within 6 months	EM-80	Ongoing	9/23/2010 (A)	As of 9/23/10, out of 203 actions definitized, 178 (or 88%) were completed within 6 months.	Complete
90% of contractor performance evaluations are completed on time	EM-80	Ongoing	9/30/2010 (A)	Analysis shows a 93% compliance rate. (342/367)	Complete

EM Goals	Lead Office	Scheduled Completion Date	Forecast (F) or Actual (A) Completion Date	Status 9/3010 and Issues	Score
Achieve end of year uncosted balances less than 20% for EM overall through active engagement with sites to ensure appropriate expenditure of funds	EM-60	9/30/2010	9/30/2010 (A)	Quarterly execution reviews are held with the sites to analyze burn rates and uncosted balances. Projections as of August 31, 2010, reflect year-end balances of approximately 20% (\$1.582B). With the exceptions factored in (construction, pensions, and White House directed Portsmouth workforce guidance), EM's year end projected balance is 11%. EM-61 continues to interact with field sites to close the year with year-end balances as low as possible. A year-end review will be held in November when final FY10 data will be reviewed.	Complete
Ensure that 80% of forecasted key ARRA Project Operation Plan (POP) milestones and corporate performance metrics are met by end FY10, per DOE's goal for stimulus funding implementation	EM-3.1	Ongoing	9/30/2010	A total of 392 milestones for the first 11 months of FY 10 (Oct 2009 - Aug 2010) and EM has completed 354 (90%) of them. Of the 354 completed milestones, 281 (79%) were accomplished on or before the baseline completion date and 73 (21%) were completed after the baseline completion date. A total of 38 milestones (10%) with a baseline completion date between October 1, 2009 and August 31, 2010 have not been (reported as) completed. EM Corporate Performance Measures targets and actuals (Oct 2009 - Aug 2010) are as follows: Achieved - 1) Industrial Facility Completions - Actual is 123% of target; 2) LLW/MLLW Total - Actual is 161% of target; 3) Nuclear Facility Completions Total - Actual is 133% of target; 4) Radioactive Facility Completions - Actual is 108% of target; 5) Remediation Complete - Actual is 300% of target. 6) TRU-CH Total - Actual is 92% of target; 7) TRU-RH - Actual is 90% of target 8) Depleted and other Uranium packaged for disposition - Actual is 100% of target. 8 of 8 (100%) corporate measures achieved 90% or more of their targets.	Complete

EM Goals	Lead Office	Scheduled Completion Date	Forecast (F) or Actual (A) Completion Date	Status 9/3010 and Issues	Score
Implement disposal, packaging, and transportation operations goals by ensuring a viable disposition path for 70% of EM-generated low level waste and mixed low level waste as forecasted in 2010 baseline disposition data	EM-40	9/30/2010	8/31/2010 (A)	COMPLETE. Annual LLW/MLLW forecast completed in March 2010. Updated data confirm disposition paths exist for over 84% of the life-cycle LLW/MLLW waste streams forecasted. Many of these streams result from uncertainties in work scope, e.g., on onsite or offsite disposal that will be made through CERCLA at Portsmouth and Paducah sites, or waste not be generated for many years. Less than 5% of the waste streams have technical or programmatic challenges. Resolution plans are drafted to document progress on near-term issues. (Goal Exceeded.)	Complete
Conduct 80% of packaging and transportation activities per DOE O 460.1/460.2 and 10 CFR Part 71 and 49 CFR requirements by the end of FY10	EM-40	9/30/2010	9/30/2010 (A)	COMPLETE. Transportation data shows an EM compliant shipment rate of 99.96% for almost 14,000 shipments. (Goal Exceeded)	Complete
Identify at least 7 technology approaches for more efficient disposition of tank wastes to save DOE \$20 to \$35B over the life-cycle and complete the Tank Waste System Integrated Project Team final report "Technical Evaluation of Strategies for Transforming the Tank Waste System" by 2/28/10	EM-30	9/30/2010	2/16/2010 (A)	COMPLETE. Final IPT Report dispatched on 2/16/10 recommending a suite of transformational strategies that could reduce the existing life-cycle baseline cost of the tank waste systems at Hanford and Savannah River sites by more than one third.	Complete
Complete studies for high cost material storage and disposition options: 5MT Excess Plutonium at Savannah River by the end of 1Q FY10	EM-30	12/31/2009	9/24/2009 (A)	COMPLETE. Report finalized September 24, 2009.	Complete
Complete studies for high cost material storage and disposition options: Spent Nuclear Fuel by the end of 2Q FY10	EM-30	3/31/2010	2/2010 (A)	COMPLETE. As per an April 28, 2010 memorandum from the SRS Acting Manager, the SNF study is complete.	Complete

EM-2 Specific Goals	Lead Office	Scheduled Completion Date	Forecast (F) or Actual (A) Completion Date	Status 9/3010 and Issues	Score
Meet at least 90% of federal/state commitments and regulatory mandates by the end of FY10	EM-40	9/30/2010	9/30/2010 (A)	The Final WV ROD was signed on April 14 and published in the Federal Register on April 20. The public comment period for the Draft Mercury EIS closed on March 30. On June 30, EM distributed the draft Final EIS and draft Comment Response Document within DOE and to the cooperating agencies for comment. EM has made the policy decision to publish the Final EIS in early November, and expects to publish the ROD in early 2011 to allow time for the expected procurement activities associated with site selection. According to the most recent compliance scorecard, EM sites met 100% of the milestones due in the second quarter of FY 10 and were on track to meet 100% of the milestones due in the subsequent four quarters.	Complete
Revise EM's 3-Year Succession Plan for leadership and staffing mission critical positions, including a Transition Plan for ARRA positions, by the end of 2Q FY10	EM-70	3/31/2010	3/26/2010 (A)	COMPLETE. Completed on March 26, 2010.	Complete
Execute at least two strategies to increase student applications by 20% by the end of FY10	EM-70	3/5/2010	3/22/2010 (A)	COMPLETE. EMPDC applications in FY09 tallied to nearly 600. EMPDC applications in FY10 totaled approximately 25,000. This figure represents an increase of approximately 210% in student applications.	Complete
Develop a transition plan for 22 HQ and field ARRA positions to address critical staffing actions needed in FY 11/12 by 6/30/10	EM-70	6/30/2010	6/15/2010 (A)	COMPLETE. Staffing/transition path forward – ARRA and EM Base Closure Projects memorandum issued by EM-2 on June 15.	Complete

Capital Line Item Project Focus for Sustained Performance

EM has demonstrated substantial improvement across its entire portfolio with improvements in both project and contract management as described earlier in this status report. Several high cost and visible capital line item projects need continued focus to maintain acceptable performance. These projects are receiving focused management attention to address the deficient areas through multiple techniques as described below, and also to ensure future capital projects are established with a better path to success from the start.

Technology Maturity. Instituted a process to ensure proper technology maturity is established prior to down-select and implementation into a capital asset project. The technique includes the use of a formal assessment to ensure the proper technology readiness levels are achieved coincident with project critical decisions. Additionally, Technical Authority Boards and TEGs have been utilized to address technical challenges experienced during the project lifecycle.

Design Management. EM has mandated that 70 - 90% design completion be achieved prior to baselining a capital project. Design management also includes early integration of nuclear safety requirements into the design and early establishment of the project “code of record,” to ensure needless changes are not made during the project lifecycle that impact cost and schedule baselines.

Senior Management Focus. “Deep-Dives” which provide a detailed review of specific projects or operations activities have been held by the Deputy Secretary for the most challenging EM projects. This review process has provided substantially increased engagement by departmental senior executives, and is now expanding into systems and processes.

Quality Assurance and Control (QA/QC). Strong project and vendor QA/QC programs have been established to ensure end-product quality and delivery of products and services are done in support of project baselines. QA/QC processes include the establishment of strong vendor commercial grade dedication programs in an environment when NQA-1 vendors are in short supply.

Baseline Control. Proper funding profiles are put in place at the point of project baseline establishment. These funding profiles are being revised as necessary to include the proper amount of contingency to address risks.

Stronger Owners Role. Improving the qualification and experience of federal IPTs and FPDs is imperative, and this need has been supported by the Staffing Analysis efforts which have been completed.. Additionally, EM is employing the use of support service talent through USACE to provide timely support for project management, construction, quality assurance, and technical expertise when needed by the project team.

Improved performance is already being seen at the Salt Waste Processing Facility (SWPF) and the WTP, with improved SPI and CPI ratings. These projects, as well as the U-233 Material Downblending and Disposition Project, Sodium Bearing Waste (SBW), and K-25 Uranium Enrichment Plant D&D, have undergone detailed CPRs to establish corrective action steps and a successful path forward. All major legacy projects, including the WTP, are on track to be completed within their current baselines.

4.0 Summary

Improving acquisition and project management, essential for EM to continue meeting its strategic objectives, remains a top priority of EM leadership. EM has implemented significant acquisition and project management enhancements and reforms that have already resulted in improved project execution and performance.

This Report summarizes several of the accomplishments to date, ongoing performance improvement initiatives, and new initiatives instituted since the original EMCAP was issued. While EM is proud of its recent accomplishments, numerous additional improvement opportunities exist. Sustained leadership with strong and dedicated focus and continued progress are major factors that will enhance EM's acquisition and project management performance.

This Report, to include the reforms outlined in the EMCAP, identifies key performance improvement initiatives to make meaningful and measurable changes in acquisition and project management and to ultimately deliver projects within cost and schedule performance parameters. The focus of the "Journey to Excellence", as the follow-on to the EMCAP, is to implement measures that successfully address internally- and externally-identified areas that require further improvement, including:

- strengthening organizational alignment and leadership;
- enhancing management plans, policies and processes;
- increasing the number and improving the capabilities of personnel; and
- improving knowledge and information management systems.

Lastly, the "Journey to Excellence" establishes a series of performance metrics upon which EM acquisition and project management performance will be measured and reported.

Real, sustainable, and measurable acquisition and project management performance improvement requires EM organizational and leadership commitment to continuous performance improvement. The entire EM organization shares the responsibility for the success of the "Journey to Excellence". The development and implementation of current and planned initiatives is an EM-wide effort that commands broad support, assured through execution of Goal 6 in the "Journey to Excellence" initiative.

Transition to and implementation of the "Journey to Excellence" as the follow-on from the EMCAP is a significant step toward fundamentally reshaping the acquisition and project management culture within EM. Investments in organizational leadership and alignment; human capital; plans, policies and processes; and knowledge and information management will further strengthen acquisition and project management. Collectively, these investments will increase

discipline in EM acquisition and project management and result in significant improvements in execution and delivery.

Appendix A. 2010 Update of Acquisition and Project Management Improvements

EM's ongoing acquisition and project management activities continue to be refined and enhanced while new initiatives are being developed, implemented and completed. EM has utilized the GAO framework for previous initiatives aimed at improving its acquisition and project management functions. As discussed in *Section 1.0, Introduction*, continuing and sustainable improvements will be initiated and tracked as an expected component of execution of the "Journey to Excellence" and the EM Business Model.

The framework used for Appendix A consists of four interrelated areas that are essential to efficient, effective and accountable EM acquisition and project management: (1) organizational alignment and leadership; (2) plans, policies and processes; (3) human capital; and (4) knowledge and information management.

- ❖ **Organizational Alignment and Leadership**—Organizational alignment and leadership is the appropriate placement of the acquisition and project management functions within EM, with stakeholders having clearly defined roles and responsibilities. Committed leadership enables EM to make strategic decisions that achieve acquisition and project management outcomes more effectively and efficiently.
- ❖ **Plans, Policies and Processes**—Implementing strategic decisions to achieve desired EM outcomes requires clear and transparent plans, policies and processes that are implemented consistently. Plans establish what is to be accomplished, including at what cost and on what schedule. Policies establish expectations about the management of the acquisition and project management functions. Processes are the means by which management functions will be performed and implemented in support of EM missions. Effective plans, policies and processes govern the planning, award, administration, and oversight of acquisition and project management efforts with a focus on assuring these efforts achieve intended results.
- ❖ **Human Capital and Professional Development**—The value of EM's organization and its ability to satisfy stakeholders depends heavily on its people. Successfully acquiring goods and services and executing and monitoring contracts and projects to help EM meet its missions requires valuing and investing in the acquisition and project management workforce. EM must think strategically about attracting, developing and retaining talent and creating a results-oriented culture within the acquisition and project management workforce.
- ❖ **Knowledge and Information Management**—Effective knowledge and information management provides credible, reliable and timely data to make acquisition and project management decisions. Each stakeholder in the acquisition and project management

processes—program and acquisition personnel who decide which goods and services to buy, project managers who receive the goods and services from contractors, contract administrators who oversee compliance with contracts, and finance personnel who pay for the goods and services—need meaningful data to perform their respective roles and responsibilities.

The following section summarizes the specific EM acquisition and project management improvements that have been completed or are ongoing in each of the four areas. Actions complete when the initial 2009 EMCAP was issued are noted as “Completed in 2009.” The “ongoing” actions which will be continued within the EM Business Model are shaded for easier identification. The documents supporting implementation of the NAPA Recommendations, BIC Recommended Actions, and EM Improvement Initiatives have been placed on the EM Portal.

A.1 Organizational Alignment and Leadership

The purpose of organizational alignment and leadership improvement activities is to ensure the appropriate placement of the acquisition and project management functions within EM, including clearly defining roles and responsibilities. The following summarizes EM's acquisition and project management organizational alignment and leadership initiatives.

A.1.1 Organizational Structure

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.1.1.1 Establish new position and office: Deputy Assistant Secretary for Acquisition and Project Management (EM-50)	Complete in 2009	<p>Summary: EM established a new position and office: Deputy Assistant for Acquisition and Project Management (EM-50).</p> <p>Document: Office of Environmental Management Headquarters, Missions and Functions Statement, October 17, 2007.</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>
NAPA Recommendation (A/PM-4)	A.1.1.2 Revise plans for the acquisition machine to locate the contract placement function at the EM CBC.	Complete in 2009	<p>Summary: EM-50 transferred 6 positions to the EM CBC (3 Procurement Contracting Officers and 3 Cost Analysts) and hiring for those positions were all filled by March 18, 2007. Final CONOPS were signed and distributed on Jan. 30, 2008.</p> <p>Document: MA Issued final report on 11/14/07.</p> <p>Location: EM Portal/Administrative/EM Organizational Improvement Initiatives/NAPA Recommendations 8/14/09</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-9)	A.1.1.3 Develop a plan for centralizing the award and administration of all EM financial assistance instruments at the EM CBC.	Complete in 2009	<p>Summary: Due to concern from the field offices expressing a major concern with transferring Financial Assistance Instruments (FAIs) that have a local interest, EM management concurs that it is in EM'S best interest to retain the FAIs that have a local interest at the field offices; therefore, these FAIs will not be considered for transfer to the EM CBC. Also, FAIs that are scheduled to expire by October 1, 2008, will not be transferred. However, existing FAIs that are currently being administered at EM sites that meet enumerated criteria are expected to be transferred to the EM CBC for administration as soon as practicable.</p> <p>Document: J. E. Surash to Distribution, "Identification of Financial Assistance Instruments for Transfer to the Office of Environmental Management Consolidated Business Center", dated May 15, 2008</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-14)	A.1.1.4 Develop an internal cost-estimating capacity in EM headquarters as well as at EM's field sites.	Complete in 2009	<p>Summary: Iterations to the proposed EM Corporate Cost Estimating Strategy have resulted in a much needed approach to enable EM to systematically focus on development and maintenance of a strong corporate cost estimating capability. The strategy identifies the work accomplished to date by EM and the EM Applied Cost Estimating (ACE) team. It also effectively lays out the needed EM corporate approach, involving the team efforts of EM HQ, the EM CBC, and EM field offices. The EM Corporate Cost Estimating Strategy of April 22, 2008, is approved for implementation.</p> <p>Documents:</p> <ol style="list-style-type: none"> 1) J. E. Surash to J.R. Craig, "Environmental Management Corporate Cost Estimating Strategy Implementation", dated May 1, 2008 2) "Corporate Cost Estimation Strategy", dated April 22, 2008; Prepared by EM CBC <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>

A.1.2 Roles, Responsibilities and Accountability

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.1.2.1 Develop a pre-award IPT template of roles and responsibilities including assigning experienced Acquisition Planning Managers (APMs) to help lead field IPTs and SEBs through pre-award acquisition processes.	Complete in 2009	<p>Summary: This document describes the concept of operations for the new DOE EM Acquisition Center, an integrated business system that supports operations and field offices in managing their major EM acquisitions efficiently and effectively by using or developing standardized and repeatable business processes. Several primary objectives of the Acquisition Center approach are described therein.</p> <p>Document: J. E. Surash to Distribution, "HCA Directive 1.3, EM Acquisition Center Concept of Operations", dated February 6, 2008</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs EM Portal</p>
NAPA Recommendation (A/PM-3)	A.1.2.2 Develop guidance for EM staff that clarifies the staff's role in dealing with the contractor.	Complete in 2009	<p>Summary: This is to advise staff with technical contract oversight that proactive monitoring of contractor performance is required under performance-based contracts. The department must determine compliance with cost and schedules, assess performance, and execute other standard responsibilities as documented.</p> <p>Document: J. E. Surash to Distribution, "Roles and Responsibilities in Performance-Based Contracts", dated May 31, 2007</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-10)	A.1.2.3 Arrange for the EM CBC to provide cost and price analysis support to all EM sites.	Complete in 2009	<p>Summary: A directive and memo were developed to establish a Cost Center at the EM CBC. The Cost Center is currently providing cost services for EM sites. The memorandum provided direction to EM Field Managers on the implementation of the centralization of cost and price analysis support to all EM sites at the EM CBC.</p> <p>Document: J. E. Surash to Distribution, "Directive for Requesting Cost and Price Analysis support from the EM CBC", dated September 9, 2008</p> <p>Location: Portal (Human Capital Community), NAPA</p>
Best In Class Recommended Action (RPA 1)	A.1.2.4 Assign leadership for BIC Project Management implementation.	Complete in 2009	<p>Summary: EM's current leadership has developed a vision and strategy for building a BIC Project and Contract Management organization. The successful completion of the CIP will result in increased federal ownership of EM projects, standardization of DOE EM processes, clear communication of requirements and policy to DOE EM personnel, timely and effective change control for both project management and contract management, and identification and socialization of best practices across the complex. Tools are provided that assist in communicating the work required to complete the project successfully.</p> <p>Document: Communication Plan</p> <p>Location: EM Portal (Best in Class Contract Management Community)/ RPA 1 / Documents / Deliverables 2008</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
Best In Class Recommended Action (RPA 8)	A.1.2.5 Clarify roles and responsibilities between project management and contract management organizations.	Complete in 2009	<p>Summary: The mission, organizational structure and functions of all EM departments are individually documented.</p> <p>Document: EM HQ, "Mission and Functions Statement", dated October 17, 2007</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>
EM-Improvement Initiative	A.1.2.6 Establish the position of the Competition Advocate and Ombudsman at the Head of Contracting Activity (HCA) for all EM acquisition activities.	Complete in 2009	<p>Summary: The EM HCA has designated both a Competition Advocate and an Ombudsman. The EM HCA has recently taken action to establish competition advocate points of contact at each EM site to assist in the preparation of the Annual Competition Advocate Report. A memorandum served to: 1) delegate to the Director, EM CBC the authority and responsibility as the Fee Determination Official; 2) delegate enumerated Head of Contracting Authorities to the Director, EM CBC; and 3) request that the Director, EM CBC identify a candidate to serve as Organizational Property Management Officer.</p> <p>Document: Memo J. E. Surash to J.R. Craig, "Delegation of Authority and Request for Nomination", dated December 4, 2007</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>

A.2 Plans, Policies and Processes

Improving plans, policies and processes provides the necessary framework to govern the planning, award, administration, and oversight of contracts and projects with an emphasis on assuring efforts achieve intended results. The following summarizes EM's acquisition and project management plans, policies, and processes initiatives.

A.2.1 Procurement Planning

A.2.1.1 Acquisition Strategy/Planning

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.2.1.1.1 Develop guidance that would allow streamlining development of acquisition plans. Focus acquisition plan on procurement considerations while the acquisition strategy is focused on programmatic issues.	Complete in 2009	<p>Summary: EM-81 has issued directives that streamline the procurement schedule and that are designed to reduce the procurement lead time, including guidance on parallel reviews. EM has also established lean management training to facilitate reductions in the acquisition cycle.</p> <p>Documents: DOE Procurement Management Review 7/23/2009</p> <p>Location: Portal (EM-11 Community) Acquisition and Project Management CAPs</p>
EM Improvement Initiative	A.2.1.1.2 Complete a 10-year acquisition schedule for the entire portfolio or category/categories of contracts.	Complete in 2009	<p>Summary: EM has established acquisition schedules with 10-year projections and 3-year lead times that reflect the lead times required to ensure follow-on contracts are in place prior to the end date of existing contracts. On January 23-24, 2007, EM-51 met with the EM CBC to assemble a 10-year acquisition forecast based on the current period of performance for existing contracts and forecasted new procurements. As a result, the EM CBC maintains a resource-loaded schedule of acquisitions to include cost and price analysts.</p> <p>Documents: "Summary of EM CBC needs assessment for Cost Price Functions" and</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
			associated write up Location: Portal (EM-11 Community), Acquisition and Project Management CAPs
EM Improvement Initiative	A.2.1.1.3 Ensure proper contract types are being utilized.	Complete in 2009	Summary: EM analyzes the requirements of each new procurement action to determine the appropriate contract type. EM conducts a Procurement Strategy Panel for each major procurement prior to the drafting of the Acquisition Plan. The site proponent briefs the scope of work for the contract and a discussion of various contract types. The panel is represented by DOE Headquarters offices to include Procurement, General Counsel, CFO and OECM. Documents: DOE Procurement Management Review 7/23/2009 Location: Portal (EM-11 Community) Acquisition and Project Management CAPs
NAPA Recommendation (A/PM-1)	A.2.1.1.4 Develop detailed guidance for determining the appropriate contract types for EM acquisitions.	Complete in 2009	Summary: Selection of appropriate contract type has been discussed with EM field office managers and guidance was issued on May 27, 2007. The attached guidance addresses this recommendation, consistent with DOE Acquisition Guide Chapter 16.1, General Guide to Contract Types for Requirements Officials Document: Memo J. E. Surash to EM Field Managers, "Guidance for Determining Contract Types", dated April 27, 2007 Location: Portal (EM-11 Community), Acquisition and Project Management CAPs
DOE Root Cause Analysis Corrective Action Plan	A.2.1.1.5 Complete the RCA corrective actions to strengthen the commitment to federal ownership by aligning and integrating acquisition strategies, acquisition plans and project plans.	Complete in 2009	Summary: RCA-CAP Corrective Measure 6. Progress Scorecard –GREEN (EM-80) Document: ESC update to GAO 9/21/10 Location: Maintained by MA-50 (OECM)

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.2.1.1.6 Develop an EM Procurement Action Reporting System (EMPARS) to aid planning, accountability and oversight of major acquisition initiatives' acquisition cycle time.	Complete in 2009	<p>Summary: EM has established a system that provides schedules for each EM major procurement action. The schedules are updated weekly. The system provides data that are used in monthly meetings to address the status of major EM procurements with senior officials in EM, the Office of General Counsel, and the OPAM. Beginning in January 2008, reporting initiatives underwent major procedural and content revisions to improve the effectiveness of the reports and facilitate the incorporation of updates from the field. In February 2008, the Weekly Procurement Report was revised to include only summary contract administration and issues. In May 2008, the monthly Contract Changes Status Report was revised to further emphasize major issues that may result in contract modifications and in August 2008 the Monthly Contract Review was changed to a quarterly event and the reporting requirements underwent several content revisions. In September 2008, reporting for all reports was transitioned to utilize the secure technology of the EM Portal.</p> <p>Document: Multiple contract-related reports</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>
EM Improvement Initiative	A.2.1.1.7 Analyze the end-to-end major acquisition process to establish pre-award process functional decomposition/work breakdown structure with nominal acquisition cycle time.	Complete in 2009	<p>Summary: EM has documented the acquisition process and posted the Knowledge Enabled Acquisition Process on the EM Portal for use by EM field sites.</p> <p>Document: Interactive Process Flow Map</p> <p>Location: Portal, Acquisition Initiatives, EM-81 Community Content, Knowledge Enabled Acquisition Process</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.2.1.1.8 Create visual tool that depicts who is working on a particular subset of acquisition process to support acquisition workforce training and facilitate business process re-engineering, i.e., process flow diagrams for major acquisition pre-award process with primary responsible organization/individual(s) depicted (process maps/"swim lanes").	Complete in 2009	<p>Summary: See A.2.1.1.7. EM has also established a document that provides information on the teams that are engaged in each major EM procurement activity.</p> <p>Document: Interactive Process Flow Map</p> <p>Location: Portal, Acquisition Initiatives, EM-81 Community Content, Knowledge Enabled Acquisition Process</p>
EM Improvement Initiative	A.2.1.1.9 Develop standardized guidance and templates with a quality review checklist for synopsizing procurement actions and for preparing and processing Justifications for Other Than Full and Open Competition (JOFOCs).	Complete	<p>Summary: Templates have been posted on the EM Portal.</p> <p>Document: Various contracting templates.</p> <p>Location: Portal, Acquisition Initiatives, EM-81 Community Content, Documents</p>

A.2.1.2 Business Clearance Review

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.2.1.2.1 Tighten control of acquisition documents and reduce the number of reviewers to those who have a substantial interest or can provide value to improve document quality.	Complete in 2009	<p>Summary: Controlled process in place by sending acquisition documents through Entrust. Documents are reviewed parallel by selected acquisition team.</p> <p>Document: Jack Surash e-mail, 7/11/09 and MA e-mail, 7/17/09.</p> <p>Location: This evidential documentation can be mapped to the "Master Matrix" spreadsheet. NAPA - Rec A/PM-17: Acquisition Processes Review; Third Interim Observation Paper, August 2007</p>
EM Improvement Initiative	A.2.1.2.2 Use the Procurement Strategy Panel to involve stakeholders during the acquisition planning process and drive critical decision making and share ownership.	Complete in 2009	<p>Summary: EM has adopted the use of Procurement Strategy Panels for its major procurement actions. The strategy panels have been useful in allowing senior officials in the procurement process in the Office of General Counsel, Office of Procurement and Assistance</p>

			<p>Management and EM senior managers to participate in an open dialogue and have their questions answered real time by technical experts familiar with all aspects of the procurement.</p> <p>Document: HCA Directive 1.3, EM Acquisition Center Concept of Operations</p> <p>Location: EM Portal, Acquisition Initiatives, EM-80 Content, Policy/Procedures</p>
NAPA Recommendation (A/PM-2)	A.2.1.2.3 Conduct a business process reengineering analysis of the DOE business clearance review process.	Complete in 2009	<p>Summary: Recommendations were documented for (1) Improving the effectiveness and efficiency of the business clearance process; (2) Improving field contacting activity accountability and performance; (3) Improving the procurement system; and (4) Improving knowledge management.</p> <p>Document: "Business Process Reengineering Recommendations", dated September 13, 2007 (draft)</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>
NAPA Recommendation (A/PM-17)	A.2.1.2.4 Review all EM processes for reviewing and approving acquisition transactions at EM HQ.	Complete in 2009	<p>Summary: Beginning in June 2008, the Office of Contract and Project Execution (EM-52) will lead these reviews. The reviews will examine the acquisition and contract management processes to include: Organization and Staffing, Policies and Procedures, Employee Development and Training, Contracting Officer Certification, Contract Administration, Contract Changes (including the review and approval process), Personal Property Management, and Local Contract Awards.</p> <p>Document: Memo J. E. Surash to Distribution, "Acquisition Management Reviews", dated June 2, 2008</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-18)	A.2.1.2.5 Draft a proposal to OPAM to pilot test the review thresholds contained in the panel's second Observations Paper at a single EM site, such as the EM CBC.	Complete in 2009	<p>Summary: In response to this last recommendation, a pilot program is being proposed to increase the business clearance threshold for the EM CBC to \$100M. It is recognized that the Senior Procurement Executive just recently revised business clearance thresholds and it is acknowledged that a simple increase at this time may be somewhat premature. As a result, the proposed pilot program is intended to go beyond a simple change in threshold to include an "open book" approach to the proposed pilot program. A significant goal of this approach is to provide the Senior Procurement Executive with full visibility into the execution of an increased level of delegated authority.</p> <p>Document: Memo J. E. Surash to Edward R. Simpson, "Pilot Program - \$100M Delegation of Authority at the Environmental Management Consolidated Business Center (EM CBC)", dated October 2, 2008</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.2.1.2.6 Institute a joint, independent review process for review of documents subject to the DOE business clearance review process HCA and Senior Procurement Executive (SPE) approval.	Complete in 2009	<p>Summary: A Parallel Review Process guidance document has been jointly issued by EM and the DOE Procurement Executive. It is expected that parallel rather than sequential reviews will shorten the procurement cycle. Effective immediately, the subject thresholds and associated requirements prescribed in the attached "Framework for Revisions of HCA Delegations/Business Clearance Review Requirements" are hereby implemented. These amendments will be formally implemented via forthcoming revisions to DOE Acquisition Guide Chapter 71.1, and individual HCA delegations of authority. Prior to finalization, the revised delegations of authority and associated requirements are effective and are conditioned upon compliance with the requirements prescribed in applicable law, regulation, DOE policy, and the attached. Actions that have previously been selected for HQ business clearance review for FY08 remain subject to HQ business clearance review unless otherwise waved by the Acting Director, Acquisition Planning and Liaison Division.</p> <p>Documents: Memo Edward R. Simpson to Heads of Contracting Activities, "Interim Implementation of Amended Head of Contracting Activity (HCA) Delegation/Business Clearance Review Thresholds", dated June 6, 2008 Memo J.E. Surash to Distribution, "Issuance of Updated EM HCA Delegation Thresholds", dated October 6, 2008</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>

A.2.1.3 Solicitation Preparation/Source Evaluation and Selection/Contract Award

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-6)	A.2.1.3.1 Develop and execute an implementation plan for the DAS for Acquisition and Project Management to assume EM Head of Contracting Activity (HCA) responsibilities.	Complete in 2009	<p>Summary: It is the policy of the Office of Environmental Management (EM) to improve its procurement process by ensuring independent and timely reviews and approvals of pre-award and post-award actions related to major contracts, subcontracts, and financial assistance actions by establishing a comprehensive process to ensure sound business decisions and compliance with all applicable statutes, regulations, policies and guidance. This policy applies to all procurement actions. Each EM site is required to establish a Review and Approval process to ensure independent oversight of procurement activities and consistency with established regulations, policies and procedures.</p> <p>Document: Memo J.E. Surash to Distribution, "Issuance of Environmental Management Head of Contracting Activity (EM HCA) Directive", dated July 10, 2008</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>
NAPA Recommendation (A/PM-11)	A.2.1.3.2 Develop and implement a PBA training initiative.	Complete in 2009	<p>Summary: One of the NAPA initiatives for EM is for EM to deliver "just in time" performance based acquisition training. A free overview of performance based services acquisition (CLC013 Performance Based Services Acquisition) is available online for free</p> <p>Document: E-mail A. Grayson to J. Arango, H. Erbes, D. Erdman, M. Kimbrough, A. Watmore, M. Wilson, J. Evett, J. Surash, "Performance Based Services Acquisition Training", dated May 18, 2007</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative & NAPA Recommendation	A.2.1.3.3 Develop standardized guidance and templates for key evaluation criteria areas, including experience, past performance, key personnel, organization, risk management, and technical approach.	Complete	<p>Summary: EM initiated the development of standardized templates. Responsibility for developing guidance and templates for use throughout the DOE procurement community was assumed by OPAM with support and coordination with the EM Office of Procurement Planning.</p> <p>Document: Various guidance and templates</p> <p>Location: DOE Intranet, MA Home, Policy & Guidance, Procurement & Acquisition</p>
EM Improvement Initiative	A.2.1.3.4 Develop standardized guidance and templates for defining data deliverables and review and approval processes for contract award documents and CMPs.	Complete	<p>Summary: The following has been developed to address the noted issues.</p> <p>Document: Acquisition Guide 42.5, 9/2006 and Surash and Owendoff memo, 1/22/08.</p> <p>Location: DOE Intranet, MA Home, Policy & Guidance, Procurement & Acquisition, Acquisition Guide</p>
EM Improvement Initiative	A.2.1.3.5 Develop standardized guidance and templates with quality review checklists as applicable for key source evaluation process steps, including source selection plan, cost evaluation, SEB reports, award without discussions, preparation for and conduct of discussions, Source Selection Official (SSO) briefing, and decision documentation.	Complete in 2009	<p>Summary: Documents for procurements that have been completed have been posted on the EM Portal to provide guidance and assistance to those who are just beginning the procurement process.</p> <p>Documents: EM Capital Project Review Final – Booz Allen Hamilton 9/24/2009</p> <p>Location: Portal (EM-11 Community) Acquisition and Project Management CAPs</p>
EM Improvement Initiative	A.2.1.3.6 Establish a virtual acquisition center to support SEB activities. Establishment of the facilities will reduce travel costs and facilitate the development of procurement documents and reviews of proposals.	Complete in 2009	<p>Summary: EM has completed the design and build out of facilities at the EM Forrestal Building and Cloverleaf buildings, as well as the Springdale Office at the EM CBC. EM has also invested in software to allow virtual communication with members of SEBs and IPTs. EM is actively seeking to improve aspects of the virtual acquisition center to maximize use of the physical facilities and to reduce travel associated with the procurement process.</p>

A.2.2 Contract Execution

A.2.2.1 Change Order Management (including Contract Modifications and Requests for Equitable Adjustments)

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
Best In Class Recommended Action (RPA 4)	A.2.2.1.1 Address unresolved baseline change proposals and requests for equitable adjustment (REAs).	Complete in 2009	<p>Summary: Process to resolve baseline change proposals and REAs in place by hosting monthly reporting between 7 field sites and EM HQ. Resolution of unresolved change orders and REAs is ongoing. FY09 – 25 unresolved, FY10 – 11 unresolved. Ref, document Change Order & REAs By Site power point, 4/14/10.</p> <p>Document: Memo J.A. Rispoli to Distribution, “Alignment of Contracts and Projects”, 7/27/2007</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>
Best In Class Recommended Action (RPA 10)	A.2.2.1.2 Establish a standardized and integrated change control process.	Complete in 2009	<p>Summary: Change control process established through OPAM memo, 4/1/08; ASI - RPA10 Site Assessment Report, 11/20/08. Activities included: developed process map, provided training to EM project management and contract management site personnel and HQ personnel, conducted site assessments to assess concurrence with the EM process and produced corrective action plan and site implementation plan. Follow-on actions were incorporated into a series of training seminars given to contract and project management personnel during FY09. These seminars were based on best practices of other agencies as incorporated into the training material.</p> <p>Document: Memo J.E.Surash to Distribution, “EM Integrated Contract & Project Management Changes Process”, dated June 20, 2008</p> <p>Location: Portal (EM-11 Community), Initiatives for Improving Project Performance / Project Support and Policy</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.2.2.1.3 Develop standardized guidance and template with quality review checklists for reviewing and obtaining approval for the ratification of unauthorized commitments.	Complete	<p>Summary: EM 82 developed a draft EM HCA directive entitled "Processing Unauthorized Commitments." Comments from reviewers are ongoing.</p> <p>Document: EM HCA Processing Unauthorized Commitments</p> <p>Location: EM-82, Office of Contract Assistance, "T" Drive</p>

A.2.2.2 Small Business Program

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-27)	A.2.2.2.1 Develop appropriate planning templates that provide for full consideration of the issues and concerns related to small business set-asides.	Complete in 2009	<p>Summary: On Oct. 8, 2009 EM issued an HCA Directive to address NAPA concerns for small-business set asides, best practices for increasing small business utilization, and identification of agencies to be contacted for small business set aside scopes of work. EM developed a Small Business Planning Template which was distributed and discussed at the 9th Annual Small Business Conference on June 23, 2008.</p> <p>Document: Draft National Academy of Public Information Recommendation 27 Small Business Activities, May 2008 Update</p> <p>Location: EM Portal/Administrative/EM Organizational Improvement Initiatives/NAPA Recommendations 8/14/09</p>
EM Improvement Initiative	A.2.2.2.2 Provide current small business subcontract reporting training to EM contracting staff.	Complete in 2009	<p>Summary: Training was provided at the CM/PM Conference in Las Vegas, July 21-23, 2009</p>

A.2.2.3 Contract Management, Surveillance and Monitoring

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-8)	A.2.2.3.1 Develop a detailed proposal for improving the current acquisition oversight program.	Complete in 2009	<p>Summary: Recommendation for increasing delegated dollar thresholds were included in the HCA Implementation Plan which was signed by EM-1 on Aug. 31, 2007. EM HCA delegated \$50M authority. Working with MA, EM has established a schedule for conducting cross functional reviews of acquisition management at EM sites. The first such review was held at Lexington in June 2008.</p> <p>Document: HCA Implementation Plan, signed by EM-1, Aug. 31, 2007</p> <p>Location: EM Portal/Administrative/EM Organizational Improvement Initiatives/NAPA Recommendations 8/14/09</p>
EM Improvement Initiative	A.2.2.3.2 Develop comprehensive, standardized guidance, process flow diagrams and quality assurance checklist for the process of transition to a successor contractor.	Complete	<p>Summary: Process in place to assist in the transition to a successor contractor through partnering.</p> <p>Document: HCA Directive 1.3, EM Acquisition Center Concept of Operations</p> <p>Location: EM Portal, Acquisition Initiatives, EM-80 Content, Policy/Procedures</p>
EM Improvement Initiative	A.2.2.3.3 Develop standardized guidance, templates, process flow diagrams and quality review checklists for the recurring contract management requirements of subcontract consent and contractor executive compensation approval.	Complete	<p>Summary: EM 82 developed a draft EM HCA 1.6 directive entitled, "Environmental Management Corporate Review and Approval Process Contracting, Subcontracting, and Financial Assistance." Comments from reviewers are ongoing.</p> <p>Document: Environmental Management Corporate Review and Approval Process Contracting, Subcontracting, and Financial Assistance</p> <p>Location: EM-82, Office of Contract Assistance, "T" Drive</p>
EM Improvement Initiative	A.2.2.3.4 Conduct Acquisition Management Reviews (AMRs) at EM sites.	Complete in 2009	<p>Summary: AMR Process has been established. FY09 Assessments for five field sites were established. All five validations and verification of</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
			assessments will be completed by May 2010. Combined V&V team from EM-82 and EM-81. Document: V&V reports Location: EM-82, Office of Contract Assistance, "T" Drive
EM Improvement Initiative	A.2.2.3.5 Follow-through with EM sites to resolve findings of AMRs in FY09.	Complete	Summary: AMR Process has been established. FY09 Assessments for EM five field sites were conducted and validations and verification of assessments for the five sites were completed. Approximately 97% of all findings have been resolved. Document: V&V reports Location: EM-82, Office of Contract Assistance, "T" Drive
EM Improvement Initiative	A.2.2.3.6 Participate in OPAM Procurement Management Reviews across DOE sites.	Complete in 2009	Summary: OPAM PMR process has been established. Combined PMR team from OPAM, EM-82 and EM-81. Documents: Acquisition and Project Management Corrective Action Plan 8/7/2009 Location: Portal (EM-11 Community) Acquisition and Project Management CAPs
EM Improvement Initiative	A.2.2.3.7 Conduct monthly contract change status review of EM contracts where modifications are expected to take longer than 180 days.	Complete	Summary: CCS reviews are conducted monthly between EM sites and EM HQ.
EM Improvement Initiative	A.2.2.3.8 Conduct quarterly contract reviews (QCRs) of EM sites' contract and acquisition workforce management functions (contractor systems review, audits, business clearance planning, small business subcontracting, and Contracting Officer/Contracting Officer's Representative (CO/COR) certification levels).	Complete	Summary: QCRs are conducted quarterly between EM sites and EM HQ. EM-82 and each of the EM sites engage in a dialogue concerning the current status of the contract and acquisition workforce management functions (contractor systems review, audits, business clearance planning, small business subcontracting, and CO/COR certifications levels). This has enabled EM stakeholders to address and

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
			<p>resolve contractual issues in real time.</p> <p>Document: QCR reports</p> <p>Location: QCRs are posted on the "T" drive and on the portal.</p>
EM Improvement Initiative	A.2.2.3.9 Conduct Deputy Assistant Secretary (DAS) review and integration of contractor performance metrics/performance incentives with program lessons learned and mission requirements.	Complete	<p>Summary: EM has participated in the FY10 pilot of the ProjNet web-service, for the purpose of lessons learned. Although, ultimately not down-selected as a DOE corporate approach, the U-233 project supplied design review comments and was prepared to execute one of their design reviews through this service. An EM lessons learned report from the WTP was utilized for the initial lessons learned database repository set for pilot efforts in lessons learned databases. DOE O 413.3B has expanded the requirements in the lessons learned reporting. The initial lessons learned report is due 90-days after CD-3 approval, "Within 90-days, submit Lessons Learned regarding up-front project planning and design to PSO and OECM." An additional lessons learned report is due 90 days after CD-4 approval, "Within 90 days, submit Lessons Learned regarding project execution and facility start-up to PSO and OECM".</p> <p>Document: Various lessons learned reports</p> <p>Location: EM Portal, Acquisition Initiatives, Lessons Learned</p>
EM Improvement Initiative	A.2.2.3.10 Conduct site incentive fee briefing to EM HQ DASs on new contract awards to integrate program and site transition activities.	Complete in 2009	<p>Summary: Incentive Fee briefing conducted 11/12/09.</p> <p>Documents: Acquisition and Project Management Corrective Action Plan 8/7/2009</p> <p>Location: Portal (EM-11 Community) Acquisition and Project Management CAPs</p>
EM Improvement Initiative	A.2.2.3.11 Conduct a pension/post retirement benefits contractual oversight workshop to educate EM COs and information resource	Complete in 2009	<p>Summary: Workshop held June 2-3, 2009 in Albuquerque, NM</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
	staff on new contract administration requirements.		

A.2.3 Project Management

A.2.3.1 Baseline Development/Management (including Project Development Rating Index, Risk Management)

Source	Performance Improvement Description	Status	
EM Improvement Initiative	A.2.3.1.1 Assess effectiveness of value engineering management on all line item construction projects and implement corrective actions for any value engineering changes, as identified.	Complete	Summary: The sites assess the effectiveness of their value engineering management for their projects.
EM Improvement Initiative	A.2.3.1.2 Utilize guidance from internal project review SOPP to strengthen baselines/contracts with measurable quantitative criteria.	Complete	<p>Summary: The standard operating procedure for performing independent project review was signed in June 2010. In most cases, the Project Definition Rating Index tool is used to conduct the reviews.</p> <p>Document: SOPP 009 Rev 0, June 2010, Performing Independent Project Reviews (IPRs)</p> <p>Location: EM Portal, Project Management, Standard Operating Policies and Procedures</p>
EM Improvement Initiative	A.2.3.1.3 Implement Project Management Information System (PMIS) on all line item projects from an EVMS standpoint.	Complete	<p>Summary: PMIS Implementation is complete for all Line-Item projects from an EVMS standpoint. The Line-Item projects are currently uploading data to the EM Project Assistance and Assurance Community on the EM Portal.</p> <p>Document: EM PMIS Information can be accessed at the location below.</p> <p>Location: EM Portal/EM Project Assistance and Assurance (EM-11) Community/EM PMIS</p>

Source	Performance Improvement Description	Status	
EM Improvement Initiative	A.2.3.1.4 Evaluate risk management plans and what percentage of low, medium, and high probability risk events actually materialize; compare actual impacts to estimated impacts; and identify risks that materialized but were not anticipated during risk planning activities.	Complete	Summary: EM has completed Federal Risk Management Plans and monitors federal risks to projects on an ongoing basis. This task is performed by site support personnel and is now a regular part of operations at the sites. Risk management registers are reviewed by the FPD.
NAPA Recommendation (A/PM-20)	A.2.3.1.5 Standardize and integrate project performance management tools across the complex, particularly those that supplement or are integrated with the Earned Value Management System.	Complete in 2009	<p>Summary: The purpose of this document is to present the plan for accomplishing the first priority of the Office of Environmental Management (EM) – to collect Earned Value (EV) information from EM's line item projects and enable EM staff in the field and at Headquarters to view, analyze, and report on the data.</p> <p>Document: EM “Support for the Environmental Management (EM) Program Office Phase 1 Project Plan”, Version 1.0, Submitted by: Energy Enterprises Solutions, dated June 5, 2009</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>
Best In Class Recommended Action (RPA 14)	A.2.3.1.6 Complete Federal Risk Management Plans and use on an ongoing basis.	Complete	Summary: This task was performed by the Recommended Priority Action (RPA) site support personnel and related efforts were performed under other RPAs. This effort is now a regular part of operations at the sites.
Best In Class Recommended Action (RPA 15)	A.2.3.1.7 Maintain Validated Federal Five-Year Baselines and Out-Year Planning Estimate Ranges and maintain on an ongoing basis.	Complete	Summary: This task was performed by the RPA site support personnel. This effort is now a regular part of operations at the sites.
Best In Class Recommended Action (RPA 20)	A.2.3.1.8 Develop EM Program Level Risk, including Risk Register and Contingency.	Complete	Summary: A work plan for conducting this effort was developed, followed by a complete collection of the site risk registers and the development of a program level risk register

Source	Performance Improvement Description	Status	
			and corresponding contingency calculation and a corporate Risk Management Plan. Document: Various documents Location: EM Portal (BIC Project Management Community)
GAO Recommendation	A.2.3.1.9 Include in budget requests to Congress the life cycle baseline cost estimate information for each cleanup project, including prior year costs, estimated near-term costs, and estimated out-year costs.	Complete	Summary: FY11 Budget submitted to Congress includes the recommended information. Document: Fiscal Year (FY) 2011 – 2015 Budget Formulation and Planning Guidance Location: EM Portal, Budget and Planning, Guidance Documents (EM-61), Formulation Guidance, FY 2011
GAO Recommendation	A.2.3.1.10 Develop an approach to regularly inform Congress of progress and significant changes in order to improve EM's accountability for managing the near-term baseline and tracking life cycle costs.	Ongoing	Summary: EM is developing a framework for operational activities. The framework will establish the approach for managing operational activities in concert with current and planned capital projects. The framework establishes the requirement to develop life-cycle operating plans (LOP) and establish life-cycle metrics. The plan will include key site cleanup assumptions and annualized metrics and life-cycle cost. Through the LOP mechanism, EM will be able to contrast contract baseline metrics and cost and life-cycle estimates for the operational portion of EM's portfolio. A key means of ensuring operational activities are efficiently executed is to link key performance milestones and metrics contained in LOPs to contract incentives. In addition, we will establish annual and life-cycle thresholds for change control to document and manage changes to operational activity cost, scope and schedule. EM will continue to report operational life-cycle estimates in its annual budget request to Congress providing an avenue to regularly inform Congress of

Source	Performance Improvement Description	Status	
			progress and significant changes within the cost, scope and schedule of operational activities.
GAO Recommendation	A.2.3.1.11 Expand the content of EM performance reports to describe the implications of current performance for the project's overall life cycle baseline.	Complete in 2009	This evidential documentation can be mapped to the "Master Matrix" spreadsheet. NAPA - Rec A/PM-20: Project Management Standardization; Third Interim Observation Paper, August 2007
DOE Root Cause Analysis Corrective Action Plan	A.2.3.1.12 Establish and implement measures to ensure adequate project requirements definition is accomplished before a project performance baseline is established.	Complete	<p>Summary: EM portfolio has been restructured, separating capital projects from operations activities for reporting, management and control. The restructuring effort has allowed EM to better define the project scope, cost, schedule, risks and requirements. Recently issued EIR and IPR standard operating procedures assist in project development. The Project Definition Rating Index (PDRI) management tool and Technology Readiness Assessments (TRAs) are used to improve upfront project planning. The maximum PDRI score is 1,000 points. At CD-2 the target score is 900. The expected Technology Readiness Level (TRL) at CD-2 is TRL=6.</p> <p>Document: SOPP 009 Rev 0, June 2010, Performing Independent Project Reviews (IPRs)</p> <p>Location: EM Portal, Project Management, Standard Operating Policies and Procedures</p>
DOE Root Cause Analysis Corrective Action Plan	A.2.3.1.13 Establish objective, uniform methods for assessing, communicating, and managing project risks and uncertainties.	Complete	<p>Summary: The RCA contract management #3 team led by EM has completed five of the six action items in the CAP. The remaining items (Risk Guide) will be completed by 10/30/10. Progress Scorecard – YELLOW</p> <p>Document: ESC update to GAO 9/21/10</p> <p>Location: Maintained by MA-50 (OECM)</p>

Source	Performance Improvement Description	Status	
DOE Root Cause Analysis Corrective Action Plan	A.2.3.1.14 Improve the alignment and integration of cost baselines with budget funding profiles to account for federal budget fiscal realities and to ensure uninterrupted project execution.	Complete	<p>Summary: The RCA contract management #4 team led by EM made several recommendations to improve integration of cost baselines and funding profiles. Based on these recommendations, the Deputy Secretary has issued two policy memos, one on full funding of small projects and one on project management principles. Progress Scorecard-GREEN</p> <p>Document: ESC update to GAO 9/21/10</p> <p>Location: Maintained by MA-50 (OECM)</p>
DOE Root Cause Analysis Corrective Action Plan	A.2.3.1.15 Identify and implement opportunities to improve the management and oversight of projects.	Complete in 2009	<p>Summary: All actions related to contract management in RCA Corrective Measure (CM) #7 have been completed. Progress Scorecard-GREEN (EM-80)</p> <p>Document: ESC update to GAO 9/21/10</p> <p>Location: Maintained by MA-50 (OECM)</p>

A.2.3.2 Project Oversight (including Project Reviews)

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.2.3.2.1 Coordinate and actively participate in reviews of project management, cost, schedule, and scope for all line item projects.	Complete	<p>Summary: EM conducted six CPRs on line item projects.</p> <p>Document: Various Construction Project Review (CPR) reports.</p> <p>Location: EM Portal, Project Management, External Reports</p>
EM Improvement Initiative	A.2.3.2.2 Conduct EM CPRs every six months for the following projects: WTP, SWPF, IWTU, U233, DUF ₆ , Plutonium Preparation, K-Basin, Tank Farm, and Tank 48.	Complete	<p>Summary: In FY09, EM created the Office of Project Management, following a model established by the Office of Science. This realignment (i.e., separating contracting from project management functions) brings added focus for addressing EM's project management and contract performance. Reviews of the referenced projects will be conducted every six months. Seven CPRs have been conducted on</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
			EM capital asset projects. Document: Various Construction Project Review (CPR) reports. Location: EM Portal, Project Management, External Reports
EM Improvement Initiative	A.2.3.2.3 Participate in field office regularly scheduled monthly contractor performance reviews, including post-review discussions with the FPDs relating to project performance and issues requiring attention.	Complete	Summary: EM-11 staff regularly participates in field office monthly contractor project performance reviews.
NAPA Recommendation (A/PM-24)	A.2.3.2.4 Build upon EM's current assessment of QA at construction sites, and perform a general assessment of QA.	Complete in 2009	Summary: Established Office of Environmental Management Quality Assurance Corporate Board Document: Memo Dae Chung to Distribution, "Establishing the Office of Environmental Management Quality Assurance Corporate Board", dated February 15, 2008 Location: Portal (Human Capital Community), NAPA
Best In Class Recommended Action (RPA 13)	A.2.3.2.5 Streamline Critical Decision Document Review and Concurrence.	Complete in 2009	Summary: A Standard Operating Policy and Procedure (SOPP) for a streamlined CD process were drafted in FY08 and finalized in early 2009. The SOPP developed was entitled; "Critical Decision Documents Approval SOPP" and it included the following templates as appendices: Appendix A – Project Execution Plan Template; Appendix B – Acquisition Strategy Template; Appendix C – Integrated Project Team Charter Template; and Appendix D – Federal Risk Management Plan Template. Document: SOPP 41, Project CD Process Location: EM Portal, Project Management, Standard Operating Policies and Procedures

A.2.3.3 Project Support/Policy

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.2.3.3.1 Issue the contingency implementation guide. (Draft)	Complete in 2009	<p>Summary: Protocol for application of contingency and Management Reserve (MR) was issued on 5/14/10.</p> <p>Document: See summary.</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>
NAPA Recommendation (A/PM-12)	A.2.3.3.2 Modify IPABS to enable it to compare EVMS cost and performance information with budget data.	Complete in 2009	<p>Summary: Table depicts actions taken from February 2007 to February 2008 to modify IPABS-IS to support QPR report generation. The goal of this project is to move to complete automation of the QPR report while continuing to ensure accuracy and consistency of QPR data via one central data repository.</p> <p>Document: Timeline table: "IPABS-IS QPR Growth and Enhancements"</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>
NAPA Recommendation (A/PM-21)	A.2.3.3.3 Examine EM's procedures for responding to, and holding field personnel accountable for, the color assessments of projects.	Complete in 2009	<p>Summary: Following OECM's revision of the criteria used to define project performance (color designations-green/yellow/red) in the monthly Deputy Secretary Report in April 2008, EM's project performance coloring scheme procedures were finalized in June 2008 for all project reporting including the Deputy Secretary Report and the QPRs.</p> <p>Document: Guidelines for Reporting Project Performance and Monthly Report Preparation, Revision 2, Office of Project Management Oversight, Approved June 19, 2008</p> <p>Location: EM Portal/Administrative/EM Organizational Improvement Initiatives/NAPA Recommendations</p>
NAPA Recommendation (A/PM-22)	A.2.3.3.4 Work with each field office to produce project-specific success metrics.	Complete in 2009	<p>Summary: Metrics incorporated into document below</p> <p>Document: Paducah QPR April 2008 EV Management Data</p> <p>Location: Portal (Human Capital Community), NAPA</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-23)	A.2.3.3.5 Produce a formal requirements document that defines the functional requirements for replacing or modifying IPABS.	Complete in 2009	<p>Summary: This IPABS-IS requirements document is a compilation of all existing IPABS-IS functionality. As the IPABS-IS system has been developed over the past 10 years, various requirements documents have been put in place. This document is a compilation of all module requirements.</p> <p>Document: “Integrated Planning, Accountability and Budgeting System-Information System (IPABS-IS) Requirements Document”, prepared by U.S. Dept. of Energy, dated April 20, 2009.</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-25)	A.2.3.3.6 Determine whether, historically, the funds identified as “unfunded contingency” have been balanced between overruns and surpluses, as well as whether the practice has prompted an excessive need for project time extensions or reprogramming requests to Congress.	Complete in 2009	<p>Summary: In response to the NAPA recommendations AIPM-25, Unfunded Contingency, EM undertook the following actions:</p> <ol style="list-style-type: none"> 1. In January 2008, the Office of Program Planning and Budget (EM-30) completed a historical review of EM's use of unfunded contingency, with an emphasis on reprogramming requirements, operating plan funding adjustments, and project schedule extensions. 2. In March 2008, EM-30 analyzed the results of this review and identified four alternative approaches to provide funding for EM cleanup project risks (See Attachment #2 EM-30, Recommended Alternatives). 3. In June 2008, the Office of Project Management Oversight (EM-53) evaluated the need to address current confidence levels used by EM cleanup projects to determine if changes in policy were warranted (See Attachment # 1 EM Contingency White Paper). 4. In January 2009, EM-53 completed the development of the EM Contingency Implementation Guidance (CIG) documents to address concerns relating to the consistent development of contingency across the EM complex. <p>Document: Memo Lowell Ely to J.E. Surash, “Environmental Management Unfunded Contingency Confidence Level for Cleanup Projects”, dated February 3, 2009</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>
NAPA Recommendation (A/PM-28)	A.2.3.3.7 Develop written guidance that clearly describes the roles, responsibilities, and processes for executing baseline changes.	Complete in 2009	<p>Summary: SOPP that defines the roles, responsibilities, and processes for executing baseline changes signed on 2/13/09.</p> <p>Document: SOPP #: 41, signed by J.E. Surash</p> <p>Location: EM Portal / Standard Operating Policies and Procedures</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
Best In Class Recommended Action (RPA 5)	A.2.3.3.8 Develop and Improve Federal Work Plans at Each Site.	Complete in 2009	<p>Summary: Performed during FY08, this task included research on current methods and development of a detailed description of a Federal Work Plan Template. It was observed through site visits that different sites used different tools that were providing for their site-specific needs. The sites already had in place processes and systems that filled the needs of the Federal Work Plan. Whether required or voluntary, the Federal Work Plan Template description is available on the Portal for sites to use.</p>
Best In Class Recommended Action (RPA 7)	A.2.3.3.9 Complete DOE EM Project Management Guidance.	Complete	<p>Summary: This task was started in FY08 and included development/support of DOE G 413.3-8, CIG, and Project Management Implementation Guide (PMIG):</p> <ul style="list-style-type: none"> • The EM Cleanup Projects Guide is finished and available on EM portal. • The draft CIG was approved by EM-50 on April 14, 2008. • The PMIG was cancelled by EM-50 because it duplicates existing guidance. <p>Document: EM Cleanup Projects Guide</p> <p>Location: EM's web site: http://www.directives.doe.gov/pdfs/doe/doetext/neword/413/g4133-8.pdf</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
GAO Recommendation	A.2.3.3.10 Consolidate, clarify and update guidance for managing cleanup projects.	Complete in 2009	<p>Summary: In restructuring the EM portfolio, categories for construction and capital asset projects are defined that are to be managed strictly in accordance with DOE O 413.3A. This Order is the overarching policy, under which a hierarchy of guidance documents has been established by DOE and EM. In September 2008, DOE project management guidance was consolidated into 18 DOE O 413.3A Guides, including DOE G 413.3- 5, <i>U.S. Department of Energy Performance Baseline Guide</i>, and DOE G 413.3-9, <i>U.S. Department of Energy Project Review Guide for Capital Asset Projects</i>. To implement DOE O 413.3A and the associated Guides, EM has implemented SOPPs or EM guides that provide further direction in specific areas where needed.</p> <p>Document: All DOE and EM project management policies, guides, SOPPs, and memorandums relating to EM project management have been consolidated on the EM Portal. An EM Portal format was designed, approved, implemented and made available to the EM complex on July 30, 2009.</p> <p>Location: The documentation can be found by accessing the EM Portal using the URL: https://ido.e.doe.gov and accessing the following hyperlink string: My Communities/EM-11 Project Management.</p>
DOE Root Cause Analysis Corrective Action Plan	A.2.3.3.11 Identify and implement opportunities to improve the management and oversight of projects.	Complete	<p>RCA CM#7, All actions related to CM#7 have been completed. Progress Scorecard-GREEN</p> <p>Document: ESC update to GAO 9/21/10</p> <p>Location: Maintained by MA-50 (OECM)</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
DOE Root Cause Analysis Corrective Action Plan	A.2.3.3.12 Re-evaluate program and project management policy, guidance, and standards for alignment and consistency ensure all project management requirements are clearly documented and followed and responsible personnel are held accountable.	Complete	<p>RCA CM#8, Progress Scorecard-GREEN</p> <p>RCA CM#7, All actions related to RCA CM#7 have been completed. Progress Scorecard-GREEN (EM-80)</p> <p>Standard operating procedures have been developed and issued for major HQ project management processes. A quality assurance review will be conducted in December 2010 to verify that expectations of the Corporate EM QA Plan are met.</p> <p>Document: ESC update to GAO 9/21/10</p> <p>Location: Maintained by MA-50 (OECM)</p>

A.2.3.4 Technology Readiness Assessments

Source	Performance Improvement Description	Status	
NAPA Recommendation (A/PM-13)	A.2.3.4.1 Implement Technology Maturity Levels (TML) and institute a formalized process for assigning ratings to proposed technological solutions.	Complete in 2009	<p>Summary: The purpose of this memorandum is to officially issue EM's Technology Readiness Assessment / Technology Management Plan (TRA/TMP) Guide for use with EM's waste processing projects. The benefits of using the TRA process include providing a structured, criteria-based, and clearly documented assessment. It also identifies specific actions to reduce risk; is a useful tool for comparing candidate technologies; promotes decision-making discipline; and improves technical communication.</p> <p>Document: Memo Inés R. Triay to Distribution, "Technology Readiness Assessment/ Technology Maturation Plan Process Guide," dated March 31, 2008</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>

A.2.3.5 Safety Management and Quality Assurance

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.2.3.5.1 Develop Standard Review Plan (SRP) Modules based on high priority DOE Order 413.3 and EM Program requirements.	Complete	<p>Summary: EM and Chief, Office of Nuclear Safety (CNS) have coordinated to develop several additional review modules that were included in the second edition of the SRP, issued via memo from EM-20 on 3/24/10 and posted online. We are continuing to research and develop additional review modules to enhance future editions of the SRP.</p> <p>Document: Standard Review Plan, 2nd Edition, Critical Decision Handbook</p> <p>Location: http://www.em.doe.gov/Pages/StandardReviewPlanModules.aspx.</p>
EM Improvement Initiative	A.2.3.5.2 Implement Vendor Shop Initiative (VSI) Phase I for EM construction projects, focused on 27 ongoing and near future critical SS/SC procurements. Deploy independent Quality Control Inspections at vendor fabrication facilities.	Ongoing	<p>Summary: Phase I of the VSI was initiated with the FPDs for implementation as indicated in the CAP for the ongoing and near future critical SS/SC procurements. The deployment of independent QC inspectors at all EM suppliers was evaluated and determined to not be a practical use of a limited supply of QC inspectors available to EM. Therefore, EM has taken a risk based approach to deploying QC inspectors at its high risk vendors. The intent of the QC inspector placement was further evaluated to determine how best to implement the CAP. Based on that evaluation, the pending Joint Supplier Evaluation Program (JSEP) was determined to sufficiently implement the VSI CAP by allowing for various contractors to provide auditors and inspectors to a centralized program. These auditors and inspectors will be used to provide assessments of the subject vendors which can then be used by the various contractors participating in the JSEP. The JSEP program is an improvement on the initial VSI plan and significantly reduces the cost of the program. The JSEP is an existing focus area for the EM QA Corporate Board and is currently scheduled to go online in September 2010 and perform a pilot test in FY11. Once the pilot test is completed, the action from the CAP will be considered complete and the continued JSEP use and population will become an ongoing effort and not part of the CAP closure.</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.2.3.5.3 Conduct 15 quality assurance audits, assessments, surveillances, and reviews of EM field sites, projects, activities, and processes. Issue reports with findings and observations. Track site corrective actions using newly developed web-based EM HQ Corrective Action Status Tracking Database.	Complete in 2009	<p>Summary: EM-23 conducted 20 site assessments in FY09. Thirteen Phase II audits were conducted to evaluate the operational, small sites, and construction projects and follow-up on issues identified from previous FY07/08 audits including four high-level waste (HLW)/used nuclear fuel audits. Three readiness review surveillances were conducted concurrently as part of a three-phased approach to qualify federal and contractor HLW programs at an EM Site. Corrective actions from issues/findings identified during these assessments are tracked and verified in the EM Corrective Action tracking database.</p> <p>For FY10, EM-23 developed a methodology for planning, prioritizing, and scheduling QA assessments. High priority areas include major construction and capital asset projects, including ARRA-funded projects; focus on QA program implementation at the sites; cross-cutting and generic QA issues; and follow-up of corrective action implementation. As a result, the Office of Safety and Security Program, EM-20, issued an updated EM-23 QA assessment schedule for the remainder of fiscal year FY10 delineating this methodology.</p> <p>Document: Memo, S. Krahn to Distribution, "Updated Fiscal Year 2010 Environmental Management Quality Assurance Assessment Schedule" dated March 22, 2010</p> <p>Location: EM Correspondence Control</p>
EM Improvement Initiative	A.2.3.5.4 Issue interim guidance on incorporation of safety into design prior to DOE issuance of DOE-STD-1189. Subsequent to issuing DOE-STD-1189, issue policy for implementation of DOE-STD-1189 to transition from interim guidance and to clarify expectations for DOE-STD-1189 methodologies.	Complete in 2009	<p>Summary: Interim guidance was issued per memorandum by Dr. Triay prior to issuance of DOE-STD-1189 (Memo, I Triay to Distribution, "Interim Guidance on Safety Integration into Early Phases of Nuclear Facility Design", dated July 18, 2006). Policy reflecting EM implementation and transition from interim guidance and to clarify expectations for DOE-1189 implementation was issued by Jim Owendoff (Memo, J. Owendoff to Distribution, "Integration of Safety into the Design Process for Environmental Management Activities", dated April 15, 2009).</p> <p>Document: See summary above.</p> <p>Location: EM Portal, Programmatic, Safety</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.2.3.5.5 Develop and implement an organizational operating experience program with a lessons learned component.	Complete in 2009	<p>Summary: SOPP#50, EM Corporate Operating Experience Program (issued in 2008), documents the implementation of a Corporate Operating Experience Program (OEP) at EM HQ and established responsibilities and methods for line oversight of operating experience programs at EM field sites. EM HQ and site OEPs focus on lessons learned and emphasize operational experience sharing across the EM complex and with other DOE organizations.</p> <p>Document: See summary above.</p> <p>Location: EM Portal, Documents Directory, DOE EM Content, Administrative, Standard Operating Policies and Procedures (SOPPs)</p>
EM Improvement Initiative	A.2.3.5.6 Establish and implement a Technical Authority Board (TAB) process to focus on resolution of technical issues, separate from programmatic and cost drivers.	Complete in 2009	<p>Summary: TAB was formally established on March 6, 2009, and is active in resolving EM issues. It has considered, provided advice, and made recommendations on a range of technical issues associated with nuclear safety. The TAB has had 14 meetings as of September 14, 2010. The TAB charter was reissued on April 5, 2010, naming a new chairman.</p> <p>Document: Federal Technical Authority Board Charter, 4/5/2010</p> <p>Location: EM Portal, Documents Directory, EM Content, Administrative, HQ EM Correspondence Center, Weekly Reader Files, 4/5-4/9/2010</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
DNFSB Recommendation 2004-1	A.2.3.5.7 Develop process for performance of Integrated Safety Management System (ISMS)/QA reviews and declarations at all EM sites.	Complete in 2009	<p>Summary: EM has developed and provided to the field sites an ISMS and QA Review Criteria and Declaration Guidance document. The guidance outlines a systematic approach for EM sites to perform annual ISMS and QA reviews and use the results to prepare an annual declaration of the effectiveness of ISMS and QA implementation. EM reviews these declaration reports and provides feedback to the field offices to improve the effectiveness of ISMS and QA programs.</p> <p>Documents: EM-53 FY 08 NNSA Implementation of 413.3A Final Report</p> <p>Location: Portal (EM-11 Community) Acquisition and Project Management CAPs</p>

A.2.3.6 Cost Estimating

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
DOE Root Cause Analysis Corrective Action Plan	A.2.3.6.1 Establish and implement a federal independent government cost estimating capability, including the development of appropriate policy and standards, allocation or required resources, and compilation of unit cost labor and material databases.	Ongoing	<p>Summary: The RCA CM#5 team, led by CF-20, has completed five of the six action items in the CAP. The one remaining item is to establish a cost estimating guide. Progress Scorecard – YELLOW</p> <p>Document: ESC update to GAO 9/21/10</p> <p>Location: Maintained by MA-50 (OECM)</p>

A.3 Human Capital and Professional Development

Attracting, developing, and retaining talent is essential to successfully acquiring goods and services and executing and monitoring contracts and projects to help EM meet its missions. The following summarizes EM's acquisition and project management human capital and professional development initiatives.

A.3.1 Federal Staffing

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.3.1.1 Designate resources for the procurement IPT and SEB phase. Formalize these designations to prioritize responsibilities for all stakeholders.	Complete in 2009	<p>Summary: EM has successfully identified members of IPTs, SEBs, and Source Selection Officials. As each team is established, a formal memorandum is sent to the EM HCA to document the team members. The SSO also designates membership on the SEB in writing.</p> <p>Documents: Common Procurement Process (Howard) 7/22/2009</p> <p>Location: Portal (EM-11 Community) Acquisition and Project Management CAPs</p>
NAPA Recommendation (A/PM-7)	A.3.1.2 Develop a staffing request for necessary GS 1102 procurement analysts and submit it to DOE HQ for approval.	Complete in 2009	<p>Summary: EM received approval to hire Procurement Analysts in Feb. 2007. Position Descriptions (PDs) for these positions were completed on April 6, 2007. Position vacancy announcements went out in May. EM has hired staff in these positions.</p> <p>Document: Various personnel documents</p> <p>Location: Maintained in EM-70 files</p>
Best In Class Recommended Action (RPA 3)	A.3.1.3 Provide project management and contract management capability reinforcements.	Complete in 2009	<p>Summary: Four full-time personnel were provided to HQ to meet near-term needs. Note that the focus has been on project management versus contract management. EM senior management decided early on to place the majority of BIC resources on project management since there appeared to be more issues in that area versus contract</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
			<p>management. Increased contract management staff identified in the human capital surveys such as the Human Capital Summary Report documented increases in contract management personnel. Contract management shortfalls have largely been corrected at each site.</p> <p>Document: Various personnel documents Location: Maintained in EM-70 files</p>
Best In Class Recommended Action (RPA 6)	A.3.1.4 Provide additional project management resources.	Complete in 2009	<p>Summary: Implementation steps included identification of required skill sets, identification of sources for skilled project management and contract management resources available for reinforcement teams, and establishing a strategy for providing Reinforcement Teams as they are required throughout the DOE complex. RPA 6 surge support has been provided as needed. For example, teams have been and will continue to be sent to sites to develop IGCEs, Federal Risk Management Plans, etc. This effort resembles the RPA 2 effort since personnel are mobilized to the sites with fixed scope statements for a variety of specific tasks. Examples of RPA 6 type support include:</p> <ul style="list-style-type: none"> • Los Alamos National Laboratory (LANL) – During Fall 2008 the USACE team provided additional cost and risk personnel – over and above the recent five FTE team – to take care of the CD 2/3 re-baselining effort and new risk management plan • ORP – The USACE team brought in two additional FTEs during Fall 2008 to create a system for cataloguing and reviewing REAs/BCPs. <p>Surge support has been provided to sites and is now a regular part of operations.</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
Best In Class Recommended Action (RPA 9)	A.3.1.5 Update and implement human capital plans	Complete in 2009	Summary: Determination of the total human capital needs of project management and contract management personnel to achieve BIC was completed at the end of FY08. Related activities are being conducted under other various other DOE and EM initiatives.
DOE Root Cause Analysis Corrective Action Plan	A.3.1.6 Develop and implement a comprehensive federal staffing plan, with an associated resource plan, to recruit, develop, and retain the optimum contract and project management federal workforce.	Complete	Summary: EM has developed and is implementing a comprehensive federal staffing plan, with an associated resource plan, to recruit, develop, and retain the optimum contract and project management federal workforce. RCA CM#2 Progress Scorecard-GREEN Document: ESC update to GAO 9/21/10 Location: Maintained by MA-50 (OECM)
EM Improvement Initiative	A.3.1.7 Develop and implement an HCA directive specifying the process and requirements for requesting issuance of contracting officer warrants under EM HCA authority.	Complete in 2009	Summary: HCA Directive developed and promulgated. Document: HCA Directive 1.1 dtd 11/15/07 Location: EM Portal, Document Directory, EM Content, EM Organizational Improvement Initiatives, NAPA Recommendations
EM Improvement Initiative	A.3.1.8 Develop standardized guidance, templates and quality review checklists as well as updated HCA directive for requesting issuance of contracting officer warrants under EM HCA authority.	Complete in 2009	Summary: HCA Directive developed and promulgated. Document: HCA Directive 1.1 dtd 11/15/07 Location: EM Portal, Document Directory, EM Content, EM Organizational Improvement Initiatives, NAPA Recommendations

A.3.2 Training and Development

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.3.2.1 Provide training to the acquisition IPT and clarify members' roles and responsibilities.	Complete in 2009	Summary: Each procurement has its own IPT. Training is provided each time an IPT is formed. Roles and responsibilities have been clarified in the EMAC Conduct of Operations (CONOPS).

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-16)	A.3.2.2 Modify project management training to include an increased focus on the capabilities and limitations of its tracking and reporting systems—EVMS, IPABS and PARS.	Complete in 2009	Summary: EM currently provides additional training opportunities to HQ and the field on project management and EVMS, above and beyond what OECM's Project Management Career Development Program Module (PMCDP) curriculum requires for FPDs. The IPABS contractor is developing a training program for the rollout of the IPABS capabilities, and a requirement is already in place in the OECM PMCDP FPD Certification Program to address mentoring requirements.
NAPA Recommendation (A/PM-26)	A.3.2.3 Undertake a study of the appropriateness of the DOE FPD certification standards to the unique operating and cleanup projects and use the results as a basis to tailor a version of those standards specifically for EM FPDs.	Complete in 2009	Summary: EM has completed a study of the appropriateness of PMCDP Certification standards relative to the unique requirements of EM Cleanup projects. As a result of this study, EM is requiring hazardous materials safety training for Level 1 PMCDP certification. This requirement is consistent with the requirements in DOE Order 361.IB, Acquisition Career Development Program, Chapter IV (Project Management Career Development Program Module [PMCDP]). Document: Memo J.E. Surash to Distribution, "EM Federal Project Director Certification - Requirement of Training in Hazardous Waste Operations and Emergency Response", dated September 2, 2008 Location: Portal (EM-11 Community), Acquisition and Project Management CAPs
NAPA Recommendation (A/PM-30)	A.3.2.4 Pilot test a management case study workshop aimed specifically at the FPDs and, if successful, include the workshop as mandatory training for some or all FPD certification levels.	Complete in 2009	Summary: Within EM, executives are assigned to top leadership positions at DOE HQ as Office Directors and Deputy Assistant Secretaries, and in the field as Field Managers and Site Managers. Executives must have displayed exceptional professional performance in previous assignments to be assigned to these top leadership positions. However, because no standard career path exists within EM,

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
			<p>executives with very different training, technical, programmatic and systems acquisition backgrounds often assume EM's top leadership positions. This diverse experience background can produce an uneven application of acquisition and project management principles within the EM clean-up program. The "Advanced Acquisition/Project Management Perspectives" element of EM's Executive Leadership Program exists to supplement the diverse experience background of its top executives. This is achieved using case studies with a three phased approach.</p> <p>Document: EM Project and Contract Management Workshop Las Vegas, NV, August 12, 2008 - Schedule of Events; Topic: "Introduction to the Case Study Method", By: Joe Nolter</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>
EM Improvement Initiative	A.3.2.5 Begin development of standardized guidance, requirements, and processes for certifying CORs.	Complete	<p>Summary: Guidance for COR certification has been developed.</p> <p>Document: Acquisition Career Development Program Handbook, 2nd Edition, January 2009</p> <p>Location: DOE intranet, MA Home, Policy & Guidance, Procurement & Acquisition, Acquisition Certification and Training</p>
EM Improvement Initiative	A.3.2.6 Identify COR requirements for unique contract administration issues of Energy Savings Performance Contracts (ESPCs).	Ongoing	<p>Summary: EM-82 is in the process of reviewing and assessing ESPC regulations and training materials to develop an ESPC COR training module. A draft ESPC COR training module is due by November 1, 2010.</p> <p>Document: ESPC COR training module</p> <p>Location: EM COTR Handbook</p>
EM Improvement Initiative	A.3.2.7 Develop a proposal for an Acquisition Cadre for EM (ACE) program so trained and experienced personnel are available to serve in	Complete in 2009	<p>Summary: ACE has been developed.</p> <p>Document: e-mail from EM-82 to EM-71</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
	acquisition roles across EM.		(Talent Acquisition Mgr). Location: EM-80 electronic file

A.4 Knowledge and Information Management

Effective knowledge and information management provides credible, reliable, and timely data to make acquisition and project management decisions. The following summarizes knowledge and information management initiatives within EM acquisition and project management.

A.4.1 Lessons Learned

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.4.1.1 Condense SEB reports. Develop precise guidelines about what should be included and omitted in SEB reports.	Complete in 2009	<p>Summary: EM is working to reduce the overall lead time for procurement actions and has met with field staff involved in the procurement process to develop recommendations for shortening the process.</p> <p>Documents: Common Procurement Process (Howard) 7/22/2009</p> <p>Location: Portal (EM-11 Community) Acquisition and Project Management CAPs</p>
EM Improvement Initiative	A.4.1.2 Develop lessons learned recommendations subsequent to major reviews and/or baseline revisions, as needed.	Complete	<p>Summary: EM-11 has developed procedures that outline work process for implementing management reforms to improve project performance. The procedures will be updated as needed to incorporate lessons learned.</p> <p>Document: Various procedure documents have been developed and posted on the Portal.</p> <p>Location: EM Portal, Project Management, Standard Operating Policies and Procedures</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.4.1.3 Identify additional data fields in IPABS that are needed to more effectively assess the use of EV performance measurements for contractors, projects (contractor and DOE), and approved baselines.	Complete	Summary: Data fields in IPABS are continuously enhanced to ensure the appropriate EVM data is collected and reported.
NAPA Recommendation (A/PM-19)	A.4.1.4 Prepare and issue a document that summarizes the basic factual circumstances related to the cost growth and schedule slippage on the WTP project and identifies the lessons that could be applied to other EM acquisition situations.	Complete in 2009	<p>Summary: Causes documented in report below</p> <p>Document: LMI Government Consulting Report DE535T1, "Hanford Waste Treatment and Immobilization Plant Project After-Action Fact-Finding Review", dated January 2006</p> <p>Location: Portal (Human Capital Community), NAPA</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-29)	A.4.1.5 Take full advantage of the lessons learned from the Moab and West Valley pilots of the Partnership for Public Service's (PPS's) Acquisition Innovation Project.	Complete in 2009	<p>Summary: The purpose of this memorandum is to establish best practices for performing contract management. Effective January 1, 2008, EM sites complex-wide will be expected to implement post-award contract management practices consistent with the best practices described in the PPS Acquisition Innovation Pilot Program Handbook and Playbook (Attachment 1) for all pending and future contract awards. These post-award contract management practices should be documented in contract management plans and be built upon the three keys to success described in the PPS Handbook (i.e., creating sustainable and accountable partnerships, providing an infrastructure for success, and implementing a system of measures to monitor and improve performance). This requirement is optional for contracts awarded prior to January 1, 2008, with the exception of West Valley and Moab, which have already implemented the Pilot Program.</p> <p>Document: Memo J.E. Surash to Distribution, "Application of Acquisition Innovation Pilot Program Contract Management Best Practices", dated January 22, 2008</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>
EM Improvement Initiative	A.4.1.6 Conduct retrospective analyses to promote learning after completion of major acquisition milestones.	Complete	<p>Summary: EM is continuously improving the acquisition process by taking lessons learned from the drafting of Requests for Proposal through to award. As an example the staff and products used for the Plateau Remediation Contract at Hanford, which was awarded in May 2008, was used as a basis for the Portsmouth D&D contract at Portsmouth, OH, which was awarded in Sep 2010, and was used as a basis</p>

			<p>for the East Tennessee Technology Park cleanup contract at Oak Ridge, TN which is expected to be awarded in the Spring 2011.</p> <p>Document: Various lessons learned reports</p> <p>Location: EM Portal, Acquisition Initiatives, Lessons Learned</p>
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A.4.2 Benchmarking

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-5)	A.4.2.1 Examine the acquisition planning policies and practices of the Naval Facilities Engineering Command (NAVFAC).	Complete in 2009	<p>Summary: This report provides an assessment of the acquisition practices used NAVFAC for environmental restoration contracts. It contains Acquisition Solutions Inc.'s findings, conclusions, and recommendations for the EM action plan to improve EM's acquisition planning and execution. NAPA suggested this assessment in its January 2007 program management review of EM's organization and practices.</p> <p>Document: "Naval Facilities Engineering Command Acquisition Practices: Findings, Conclusions, and Recommendations", prepared by U.S. Dept. of Energy, Office of Environmental Management, Office of Acquisition and Project Management dated July 27, 2007.</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
NAPA Recommendation (A/PM-15)	A.4.2.2 Require contractors to produce the five standard EVMS CPR reporting formats.	Complete in 2009	<p>Summary: In accordance with DOE Order 413.3A, all contracts for an EM line item or EM clean-up project that have a total project cost or near-term baseline of \$20M or greater must employ an EVMS that is compliant with the American National Standards Institute/Electronic Industries Alliance (ANSI/EIA)-748 Standard. Projects between \$20M and \$50M must be self certified by the contractor as compliant with the standard, and projects \$50M or greater must be reviewed and certified by the department.</p> <p>In order to establish a minimal EV reporting requirement, effective September 1, 2007, all projects should report EV data in the five Office of Management and Budget Contract Performance Report Formats listed.</p> <p>Document: Memo J.E. Surash to Inés Triay, "Establishing the Requirements for an Earned Value Management System, Standardizing Minimal Reporting Requirements, and Implementing an Earned Value Management System Surveillance Program", dated July 6, 2007</p> <p>Location: Portal (EM-11 Community), Acquisition and Project Management CAPs</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
Best In Class Recommended Action (RPA 11)	A.4.2.3 Establish Standards for EM management products and practices.	Complete in 2009	<p>Summary: This task was started in FY08 and was completed in early 2009 with the development of SOPPs. EM-11 is finalizing the documents through its internal SOPP approval process. Deliverables developed or finalized included:</p> <ul style="list-style-type: none"> • CD documents approval SOPP, including: <ul style="list-style-type: none"> ◦ Appendix A - PEP Template ◦ Appendix B - Acquisition Strategy Template ◦ Appendix C - IPT Charter Template ◦ Appendix D - Federal Risk Management Plan Template • Preparation for EIR SOPP; • Interviews Summary Report; • IPR SOPP; • EM Projects Corporate Change Control Process; and • New Start Project CD-0 SOPP. <p>Document: SOPPs</p> <p>Location: Draft documents are available on the BIC Community of the EM Portal.</p>

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
Best In Class Recommended Action (RPA 12)	A.4.2.4 Complete pilot selection and implementation of an enterprise project management software solution.	Complete	<p>Summary: Direction for establishing an enterprise software package is being established by the Strategic Business Review (SBR) team. It is expected that the IPT will develop and provide direction for a common platform and language for developing and communicating PM information and provide consistent, repetitive, and successful process for project execution. The assessment, which was led by EM-32, provided useful information to the IPT in starting a more in-depth review of a full and complete software solution for EM. The current status for the three types of PM software is as follows: (1) EV: Dekker has been selected. The RPAs staff supported field installation of the EM PMIS system, using the Dekker PMIS Software; (2) Risk: Reviewed quotes on an Oracle/Primavera Pertmaster system.</p> <p>Document: Support for EM Program Office, Phase I Project Plan Version 1.0, June 2009</p> <p>Location: EM Portal, Administrative, EM Organizational Improvement Initiatives, NAPA Recommendations</p>
Best In Class Recommended Action (RPA 19)	A.4.2.5 Develop a cost pricing database.	Complete	<p>Summary: This was executed in two phases. Phase 1 included the development of the CWBS and corresponding dictionary. The CWBS captured all of EM's work at the appropriate level. The CWBS is a four-tier structure and includes: (1) EM, (2) sites, (3) projects, and (4) ABBs. PBSs and EM Program Mission Categories are captured at the ABB dictionary level. Phase 2 included support for developing an electronic repository for actual project cost data. The project data will ultimately be in the Environmental Cost Analysis System (ECAS). Phase 1 was finished in May 2009 and Phase 2 was completed in September 2009. The ECAS database already exists; therefore, historical cost and scope</p>

			<p>information from the Mound and Fernald sites was evaluated, normalized, and put into a format whereby EM can populate the ECAS database.</p> <p>Document: ECAS electronic database</p> <p>Location: Maintained at EMCBC by the Office of Cost Estimating and Analysis.</p>
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A.4.3 Accessible Knowledge and Information Repository

Source	Performance Improvement Description	Status	Results (and Reference Documentation)
EM Improvement Initiative	A.4.3.1 Establish EM Portal Acquisition Section as a holistic web-based resource for acquisition knowledge, including policies, procedures and templates for use across the EM complex and by external stakeholders.	Complete	<p>Summary: EM has established a knowledge enabled acquisition process on the EM portal and solicited comments from EM field sites on improving the site.</p> <p>Document: Interactive Process Flow Map</p> <p>Location: Portal, Acquisition Initiatives, EM-81 Community Content, Knowledge Enabled Acquisition Process</p>
EM Improvement Initiative	A.4.3.2 Provide subscription service to deliver daily news and research on acquisition subjects and other information to contracting officers' desktops.	Complete	<p>Summary: Yearly Virtual Acquisition Office subscription in place through Acquisition Solutions, Inc. 3/26/10</p> <p>Document: Acquisition News</p> <p>Location: Delivered to individual Contracting Officer's computer via email.</p>

Appendix B. GAO Comments on EM Contract and Project Management CAP

GAO Summary Comments	EM Response and CAP Revisions
<p>We would like to thank DOE-EM officials for giving us a chance to review and comment on EM's draft Corrective Action Plan. The plan is responsive to one of our recommendations made last year in GAO-08-1081. We were pleased to read (on page 15) and agree with the statement that the two overarching performance metrics—one for construction projects and one for EM cleanup projects—are the focus of EM efforts to improve performance and that lack of achievement of EM's secondary metrics should not and will not detract from efforts to attain these overarching metrics.</p>	<p>No specific comment.</p>
<p>We would like to reiterate our view on the EM-CAP (and DOE-CAP) overarching performance metric for EM cleanup projects. As we reported in GAO-08-1081, on pages 38 and 43, we do not agree with this new metric for cleanup projects. We explain our rationale in the report and continue to believe that this metric is not appropriate for improving project performance. We reported that projects are now considered successful if they achieve at least 80 percent of their planned work scope and accomplish this with no more than a 25 percent cost increase. We observed that this new performance metric permits up to 20 percent of the initial scope of work to be deferred from the near term baseline to the out year portion of the baseline, which creates a substantially greater risk that life cycle costs will continue to increase and that completion dates will be delayed. By lowering expectations for adhering to cost and schedule baselines, DOE inadvertently may be creating an environment in which large increases to project costs become not only more common, but accepted and tolerated.</p>	<p>Concur. In accordance with the DOE CAP commitment to revisit the performance metric for EM cleanup, the EM program is currently reviewing this metric. A proposed revised metric will be complete by 9/30/09. (See attached June 5, 2009 and June 24, 2009 Ines Triay memorandums.)</p> <p>Update Oct 2010. We agree and have addressed the concern. Per Root Cause Analysis Executive Steering Group decision discussed at the Quarterly Briefing to GAO, March 29, 2010, the metric for evaluation of EM cleanup projects is now the same as for the rest of DOE. The 80% of scope aspect of the metric is now moot.</p>
<p>The EM-CAP (and DOE-CAP) performance metric for cleanup projects appears to include performance information only for those cleanup projects that have been completed during the 3-year rolling average time period. As we discussed recently with EM staff, we believe that, in addition to completed cleanup projects, the performance metric for cleanup projects should also include performance information for those cleanup projects that have completed their near-term baseline during the 3-year rolling average time period. As discussed, a small number of the larger cleanup projects account for a large portion of EM's annual budget, these projects are the most complex and challenging, and they will not be completed for many years. Including performance information on these larger, longer-term projects as they complete their near-term baselines would better reflect EM's overall performance.</p>	<p>Concur. In accordance with the DOE CAP commitment to revisit the performance metric for EM Cleanup, the EM Program is currently reviewing this metric. A proposed revised metric will be complete by 9/30/09. (See attached June 5, 2009 and June 24, 2009 Ines Triay memorandums.)</p> <p>Update Oct 2010. PBS performance data in this update, and in routine EM monthly and quarterly reporting, includes EV data for ongoing and completed projects.</p>
<p>While we appreciate EM's attempts to formulate a corrective action plan, it is not entirely clear how much this plan differs from the DOE CAP. Without directly saying so, it appears that the EM-CAP includes (1) the DOE-CAP two overarching metrics in their entirety, (2) all but one of the DOE-CAP secondary metrics, (3) added four additional EM secondary metrics, and (4) five of the 139 initiatives in Appendix A are nearly identical to 5 of the 8 corrective measures included in the DOE-CAP. It would be helpful to explain this so the reader may understand better the similarities and differences between the EM-CAP and the DOE-CAP.</p>	<p>Concur. The relationship between the DOE CAP and EMCAP has been clarified (page iv).</p> <p>Update Oct 2010. The initiatives in Appendix A are mostly complete or ongoing. This update will close out Appendix A, and future continuous improvement efforts will come from the "Journey to Excellence" goals in concert with the EM Business Model. The Quality Assurance Plan (QAP) will ensure verification and validation of actions through assessment.</p>

GAO Detailed Comments	EM Response and CAP Revisions
<p>Page 6 – The DOE CAP is mentioned, but the similarities and differences between the DOE-CAP and the EM-CAP are unclear. (See Summary comment above.)</p>	<p>Concur. The relationship between the DOE CAP and EMCAP has been clarified (page iv)</p>
<p>Page 14 – EM’s Performance Metrics refer to a directed change, but do not define the term. We recommend revising the EM-CAP to incorporate the DOE-CAP definition of a “directed change” as found on page x, footnote 1 of the DOE-CAP. This definition is more precise and appropriate than the definition used in DOE Order 413.3A.</p>	<p>Concur. The definition of directed change (as defined and included in the DOE CAP) has been incorporated in the EMCAP (page 6).</p>
<p>Page 14 - It is unclear in the EM-CAP (and the DOE-CAP) which EM cleanup projects will be included in the overarching primary metric for EM cleanup projects shown in Table 3-1 of the EM-CAP. (See Summary comments above.) We have several questions related to this performance metric:</p> <ul style="list-style-type: none"> (a) Will this metric include performance information only for those EM cleanup projects that have reached CD-4 within the 3-year rolling average? (b) Will it also include performance information for EM cleanup projects that have completed their near-term baseline within the 3-year rolling average? (c) If it includes performance information on EM cleanup projects as they complete their near-term baselines, by what measures will EM determine that a cleanup project has met its near-term baseline scope? (d) Would EM provide us examples of how a cleanup project has established a near-term scope when a near-term baseline is established and how it was determined that a cleanup project was completed at least 80 percent of its initial scope of work? 	<p>Concur. In accordance with the DOE CAP commitment to revisit the performance metric for EM Cleanup, the EM program is currently reviewing this metric. A proposed revised metric will be complete by 9/30/09. (See attached June 5, 2009 and June 24, 2009 Ines Triay memorandums.)</p> <p>Update Oct 2010. The restructuring of the EM portfolio has also driven restructuring of our reporting and evaluation metrics. Capital projects will continue to report in the enhanced PARS II according to DOE-wide requirements. Operations activities will report EV and metrics data for completed and ongoing projects on monthly and quarterly basis. The item (d) regarding 80% of scope completion is now moot with decision for EM to use the same project completion metric as for the rest of DOE.</p>
<p>Page 14 - Given the large variation between the size of the cleanup projects it may be more appropriate to measure the performance of EM cleanup projects based on dollar value of the projects rather than counting projects.</p>	<p>Currently under consideration. The EM cleanup metric is currently under review and a proposed revision will be complete by 9/30/09.</p> <p>Update Oct 2010. Restructuring of EM portfolio into capital projects and operations activities will provide significantly greater focus and granularity of performance data. Summary analysis in this update and in routine monthly and quarterly reporting includes analysis by dollar value and number.</p>
<p>Pages A-3 – A-13 – References are made to multiple documents as the sources for the 139 initiatives shown on these pages. The EM-CAP could be improved by providing footnote citations to the reports cited on these pages. Have all the recommendations made in each of these reports been carried over to the list of initiatives?</p>	<p>Concur. References to the documents have been included (page iv). Yes, all recommendations from the referenced reports have been included in the EMCAP, either separately or combined with other ongoing, related performance improvement initiatives.</p> <p>Update Oct 2010. QAP implementation described in Section 1.0 of this update will ensure ongoing verification.</p>
<p>Pages A-3 – A-13 – It is unspecified how the status of the initiatives shown on these pages is determined—who is responsible for determining the status? Is there a record kept of the actions taken for each of these initiatives? There is no indication of when any of these initiatives shown as “ongoing” may be completed.</p>	<p>Concur. The documents supporting the implementation of initiatives are being placed on the EM portal and will be consolidated by 9/30/09.</p> <p>Update Oct 2010. Section 4.0 was updated in June 2010, and again in this update. QAP implementation described in Section 1.0 of this update will ensure ongoing verification of action effectiveness.</p>

Appendix C. Detailed Description of Integrated Planning Accountability and Budgeting System IPABS

The EM project management philosophy has continued to evolve since 1999 and the IPABS similarly has evolved into a mature enhanced system. IPABS has been expanded to accommodate new requirements, improved reporting information, and expanded performance data. For example, when EM declared in 2007 that all PBSs would be projects, the IPABS reporting level was established at the PBS level and the PBS lifecycle cost was divided into three parts. First, prior year actual costs, FY97 to the year prior to the near term baseline (NTB); the NTB, which was a five year period; and the OPER, which represents the remaining scope of work through completion. EM applied DOE Order 413.3A requirements to the NTB including either an EIR performed by OECM or an IPR performed by EM HQ. The results were validated baselines for the NTB and an assessment of reasonableness for the OPER.

Now that EM has restructured the EM portfolio (the former PBSs) into smaller, better defined capital asset projects and operations activities, the IPABSs reporting levels are established at the sub-PBS level or at the individual capital asset or operations activity level. Each capital asset project will stand on its own and be subject to the requirements of DOE Order 413.3A, including establishing the baseline at CD-2. Operations activities will correspond to the contract period of performance and be modified annually based on the funding levels. The NTB and OPER concepts will be maintained as part of the lifecycle cost.

The IPABS system contains checks and balances provided by a site administrator responsible for reviewing and approving entries made by the field users. In addition, EM HQ has a reviewer who accepts or returns the data for rework before accepting it. Data that is returned includes incomplete change request information, annual performance goals, and incorrect budget data. The contractors' EVMS data is never manipulated at HQ and is accepted as submitted. This ensures the most accountable and accurate performance data is entered and tracked in the system. Each module is opened and closed for data entry at specified times during the month to maintain data integrity. IPABS has established separate modules within the system to track and report key project elements, milestones, performance metrics, budgets, and earned value data. Some of the key modules are:

- The Project Execution Module (PEM) provides the CAP and operations activity EV management data, which is provided by the contractor in the monthly CPR. The data includes the budgeted cost of work scheduled (BCWS) or value of the work planned to be completed (baseline); the budgeted cost of work performed (BCWP) or the value of the work that was actually completed; the actual cost of work performed (ACWP) or the cost of the work that was performed; the schedule variance (BCWP-BCWS); the cost variance (BCWP-ACWP); the cost and schedule percent; the schedule performance index (BCWP/BCWS); the cost performance index (BCWP/ACWP); and a combination

schedule cost index. The date is provided for the fiscal year, NTB (baseline) or contract period of performance, cumulative to date, and past six months. These performance elements are the standard EV data elements that are utilized to determine how well the contractor is performing work. This data has historically been reviewed by EM-10 prior to transferring it to the department's PARs system.

- The QPR Module provides EM-HQ senior management with the current performance status and overall health of each CAP, operations activity, and ARRA project. EM HQ provides the sites with a template that is seeded with data from IPABS. The sites review the data, provide an assessment, add additional information, and submit the completed template back to HQs for review. Changes are made as needed and distributed through the EM portal. The QPRs are held over a three or four day period, and each FPD presents the data, answers questions, and receives action items. The QPR data includes general project information such as project name and number, location, description, FPD, contractor, EVMS certification, NTB, OPER, etc. EV data is presented and color coded to depict the overall health of the project. Data includes the cumulative BCWS, BCWP, ACWP, CPI, and SPI. Key project risks and mitigation strategies are identified; safety performance information is discussed; technical risks and issues are ranked; quality assurance concerns and planned actions are identified; funding summaries and contract issues are provided; EV graphs are color coded according to performance criteria; year-to-date performance narratives are provided, including corrective actions and expected completion dates; milestone and metric status are evaluated against the original dates and quantities; and overall project top issues, proposed solutions, and next steps are discussed. For CAPs that are pre-CD-2, the information presented includes project descriptions, cost and schedule ranges, issues that may impact obtaining CD-2, HQ actions required, and project milestone dates. The QPR for ARRA includes general information, project scope and performance parameters, milestones, performance metrics, and earned value performance data that is color coded based upon meeting project baseline requirements.
- The Cost Module ensures the EM lifecycle costs are under configuration control; provides a tracking mechanism for cost modification requests, workflow process and audit capability for change requests; modifications to start, end, NTB or contract period of performance, dates; updating data immediately upon change request approval; and separates original baseline from current baseline.
- The Milestones Module categories include planning/budget, regulatory compliance, key project or operations activity accomplishments, procurement actions, and site completion dates. The field has the flexibility to add, delete, or edit milestones to better reflect those activities that are critical to successfully completing the project or activity. Data

collected includes a description of the milestone, the category, baseline completion date, forecast date, milestone status, actions and action dates, and schedule status.

- The Metrics Module provides the performance measures for the entire EM program, lifecycle estimates, and annual targets, by site. These metrics are important for determining how successfully many of the operations activities are performing. Examples of the metrics include cubic meters of contact handled and remote handled transuranic waste, low level and low level mixed waste disposed, number of high level waste or plutonium canisters packaged for disposal; number of facilities demolished, number of release site completed, number of tanks closed, metric tons of spent nuclear fuel packaged for disposition, etc. These metrics are reviewed in the QPRs and tracked on a monthly basis.
- Other specialized modules include:
 - Get to Green Module that provides corrective action plans for capital asset projects that are not performing as planned
 - Exhibit 300 reports to standardize, centralize and automat the generation of the annual 300 reports
 - Recovery Act Modules created to collect all of the unique required reporting elements for the recovery act besides the normal EV and project performance data
 - EM Liability Module allows the sites to record changes in the EM liability as new technologies are implemented, additional cleanup criteria are better defined, new facilities are transferred to EM from other DOE organizations, additional regulatory requirements are identified, uncertainty scores, etc.
 - Budgeting (funding) Modules that provide budget numbers, tables, and information by site, PBS, etc.

Appendix D. EM-Specific Contributions to Root Cause Analysis Corrective Measure Implementation

The Department of Energy (DOE) has made a commitment to making tangible improvements in contract and project management performance. Improving DOE contract and project management continues to be a top priority of the Department's senior management and entire organization. While DOE's contract and project management has been on the Government Accountability Office (GAO) High Risk List since 1990, several real and measurable improvements have been implemented recently.

The Department conducted a root cause analysis (RCA) workshop on October 16–17, 2007 to identify the systemic challenges of planning and managing DOE projects. During the workshop 143 issues were identified, consolidated, and prioritized. The results of the RCA workshop were published in an April 2008 DOE report entitled, *U.S. Department of Energy Contract and Project Management Root Cause Analysis*. This report identified the most significant issues DOE faces in managing contracts and projects.

Following the RCA report, the DOE published the *U.S. Department of Energy Contract and Project Management Root Cause Analysis Corrective Action Plan* (CAP) in July 2008. This report focused on addressing deficiencies identified in the RCA report by developing eight corrective measures and associated actions to address root causes and remedy the most significant issues hindering effective contract and project management.

The Department has prepared the *U.S. Department of Energy Contract and Project Management Root Cause Analysis and Corrective Action Plan Closure Report (Preliminary Final)*, dated October 2010, to document the accomplishments and corrective actions taken to address the RCA CAP. This has been a Department-wide effort with significant contributions by staff and program offices. EM has been an active participant in the effort from the start, with accomplishments for each corrective measure, and multiple corrective actions instituted for the root causes. The tables below are extracted from Chapter 2 of the subject report, depicting the EM-specific accomplishments and corrective actions taken in support of the RCA CAP.

CORRECTIVE MEASURE 1 – IMPROVE PROJECT FRONT END PLANNING

Corrective Measure 1: Establish and implement measures to ensure adequate project requirements definition is accomplished before a project performance baseline is established. This would include defining planning benchmarks, ensuring adequate resource allocation, and conducting third-party reviews prior to project approval, additional funding authorization, and project execution.

Accomplishments: The Department has taken the necessary steps to ensure project front-end planning is completed to an appropriate level before establishing a project's performance baseline.

- EM divided large programs/projects into smaller, stand-alone projects, as appropriate.
- EM used Project Definition Rating Index (PDRI) to evaluate all Recovery Act projects prior to baselining.
- EM conducted Technology Readiness Assessments to ensure timely resolution of engineering and technology issues early in the project's development.
- EM developed a Corporate Work Breakdown Structure (CWBS) to standardize collection of data across EM, assist in analyzing performance data, develop cost estimates, and simplify budget preparation.
- EM required capital asset projects to complete 70-90% design prior to baseline approval.

Issue 1: DOE often does not complete front-end planning to an appropriate level before establishing project performance baselines.

Actions to Address Root Causes:

Root Cause: Insufficient number of personnel

- EM conducted independent studies of staffing needs and developed a remediation plan, especially focused on capital asset projects.
- EM has hired over 100 additional project and contract management professionals since FY 08.
- EM has established a partnership with US Army Corps of Engineers (USACE) in 2007 to provide more than 90 full-time equivalent (FTE) staff annually.
- EM continued the existing contract and awarded two new support contracts with the USACE to augment project management, project control, and quality assurance staff.
- Developed an agreement with the Seaborg Group for an EM Technical Expert Group to provide expeditious access to high caliber technical expertise for design reviews and technical analysis.
- Certified 87 percent of EM contract specialists through DOE's Acquisition Career Management program.
- 94% of EM Cleanup projects are managed by a Federal Project Director certified at the appropriate level of the Project Management Career Development Program.

Root Cause: Lack of personnel with the appropriate skills

- EM conducted project specific reviews to assess appropriate number of skilled personnel necessary to provide management and oversight of its projects.
- EM self identified projects where specific skills were lacking and augmented project teams with USACE personnel with specific expertise and experience.
- EM has established the Acquisition Cadre for EM (ACE) that provides trained and experienced personnel to serve in acquisition roles across EM.

Root Cause: Inadequate time dedicated to front-end planning

- The use of PDRI tools and technology readiness and maturation assessments during Independent Project Reviews to assess readiness and maturity of project planning activities is improving front-end project planning.

Corrective Measure 1: Establish and implement measures to ensure adequate project requirements definition is accomplished before a project performance baseline is established. This would include defining planning benchmarks, ensuring adequate resource allocation, and conducting third-party reviews prior to project approval, additional funding authorization, and project execution.

Root Cause: Reliance on the M&O contractor

- EM is consciously moving away from M&O contracts to FAR Part 15 contracts, and has adopted a “strong owner” culture. This movement will take time, but is resulting in reduced reliance on M&O contractors to manage EM projects.

Root Cause: Lack of defined benchmarks

- EM is using benchmarks to improve the contract and project management functions. EM conducted an assessment comparing EM's acquisition practices to the Naval Engineering Command's (NAVFAC) practice for environmental restoration.
- EM uses the Technology Readiness Assessment (TRA) guide on waste processing projects to assess. The guide is used, among other things, for comparing candidate technologies.

Root Cause: Lack of effective interdepartmental integration

- EM is working with DOE's CFO to establish and maintain out year funding profiles (minimum 5-year profiles) that are utilized for project planning and execution.
- EM and DOE's Office of Procurement and Acquisition Management (OPAM) have improved the coordination of the Headquarters Business Clearance Review processes and staff interactions.
- EM participates in monthly EM Pre-Award Reviews where Integrated Project Teams, DOE's OPAM and the Office of General Counsel (GC) meet to discuss the status of procurement actions.

CAP Items Requiring Further Action To Complete:

- No further corrective actions needed. Ongoing continuous improvement actions are identified in Section 4.0.

CORRECTIVE MEASURE 2 – ENHANCE THE FEDERAL CONTRACT AND PROJECT MANAGEMENT WORKFORCE

Corrective Measure 2: Develop and implement a comprehensive federal staffing plan, with an associated resource plan, to recruit, develop, and retain the optimum contract and project management federal workforce.

Accomplishments: The Department has taken the necessary steps to ensure is has an adequate number of federal contracting and project management personnel with the appropriate skills.

- EM conducted independent studies of staffing needs and developed a remediation plan, especially focused on capital asset projects.
- EM has hired over 100 additional project and contract management professionals since FY 08.
- EM has established a partnership with US Army Corps of Engineers (USACE) in 2007 to provide more than 90 full-time equivalent (FTE) staff annually.
- EM continued the existing contract and awarded two new support contracts with the USACE to augment project management, project control, and quality assurance staff.

Corrective Measure 2: Develop and implement a comprehensive federal staffing plan, with an associated resource plan, to recruit, develop, and retain the optimum contract and project management federal workforce.

- Developed an agreement with the Seaborg Group for an EM Technical Expert Group to provide expeditious access to high caliber technical expertise for design reviews and technical analysis.
- Certified 87 percent of EM contract specialists through DOE's Acquisition Career Management program.
- 94% of EM Cleanup projects are managed by a Federal Project Director certified at the appropriate level of the Project Management Career Development Program.

Issue 2: DOE does not have an adequate number of federal contracting and project management personnel with the appropriate skills (e.g., cost estimating, scheduling, risk management, and technical) to plan, direct, and oversee project execution.

Actions to Address Root Causes:

Root Cause: Insufficient budget resources

- In EM, contingency use is closely monitored to assure that risk and the implementation of associated mitigation strategies are consistent with the RMP as described in DOE G 413.3-7, Risk Management Guide.
- On a site-by-site basis EM has largely corrective Contract Management shortfalls by deploying 67 FTEs to 8 sites and Program HQ since October 2009.
- In EM, budgets for capital asset projects are set at 80% confidence levels. In some cases budgets still do not adequately account for some risk occurrence due to restricted funding profiles. However, funding profiles are now being aligned to ensure proper budget to address identified risks for all capital asset projects.

Root Cause: Conflicting and competing priorities

- In FY 2009, EM created the Office of Project Management, following a model established by the Office of Science. This realignment (i.e., separating contracting from project management functions) brings added focus for addressing EM's project and contract management, and allows conflicting and competing priorities to be managed at the Program level.
- EM hired additional Procurement Analysts and Acquisition Planning Managers with the necessary experience to resolve resource conflicts for these valuable resources.
- EM developed and executed a Corrective Action Plan (EMCAP) which consolidates all previous project and contract management initiatives into a single, consolidated and coordinated action plan. This plan tracks to completion previous actions and provides the mechanism for continuous improvement.

Root Cause: Inferior federal government compensation compared to the private sector

- DOE did not address this Root Cause due to the limitations of the Department in changing federal government compensation.

Root Cause: Inadequate roles and responsibilities definition

- EM has reorganized its headquarters function and clearly defined roles and responsibilities at the Deputy Secretary levels and below. Additionally, the reorganization resulted in clear and documented roles and responsibilities between the headquarters function and field activities.
- In EM, a Concept of Operations Document was issued to clarify roles and responsibilities and provide guidance on the realignment of EM procurement operations under a single Head of Contracting Activity.

Corrective Measure 2: Develop and implement a comprehensive federal staffing plan, with an associated resource plan, to recruit, develop, and retain the optimum contract and project management federal workforce.

Root Cause: Inadequate training

- DOE's Certification Review Board (comprised of NNSA, EM and SC) increased funding for the Program Management Career Development Program (PMCDP) from \$1.0M in 2008 to \$1.4M in 2009.

CAP Items Requiring Further Action To Complete:

- No further corrective actions needed. Ongoing continuous improvement actions are identified in Section 4.0.

CORRECTIVE MEASURE 3 – IMPROVE PROJECT RISK ASSESSMENT, COMMUNICATION, AND MANAGEMENT

Corrective Measure 3: Establish objective, uniform methods for assessing, communicating, and managing project risks and uncertainties. This would include the development of realistic budgets and schedules, and the consistent definition, development, and use of management reserve and contingency.

Accomplishments: The Department adjusted risk management procedures to ensure risks associated with projects are objectively identified, assessed, communicated and managed through all phases of planning and execution. Additionally the Department:

- EM implemented policy on the proper application of contingency and management reserve and requiring Federal Risk Management Plans (RMPs).
- EM requires that Federal Risk Management Plans (RMPs) be a component of all EM projects. All ARRA projects received a HQ review of the RMP prior to funding.
- Within EM, MR and Contingency use is presented in the updated Monthly Report formats for HQ review.

Issue 3: Risks associated with projects are not objectively identified, assessed, communicated, and managed through all phases of planning and execution.

Actions to Address Root Causes:

Root Cause: Insufficient number of personnel

- EM conducted independent studies of staffing needs and developed a remediation plan, especially focused on capital asset projects.
- EM has hired over 100 additional project and contract management professionals since FY 08.
- EM has established a partnership with US Army Corps of Engineers (USACE) in 2007 to provide more than 90 full-time equivalent (FTE) staff annually.
- EM continued the existing contract and awarded two new support contracts with the USACE to augment project management, project control, and quality assurance staff.

Corrective Measure 3: Establish objective, uniform methods for assessing, communicating, and managing project risks and uncertainties. This would include the development of realistic budgets and schedules, and the consistent definition, development, and use of management reserve and contingency.

- Developed an agreement with the Seaborg Group for an EM Technical Expert Group to provide expeditious access to high caliber technical expertise for design reviews and technical analysis.
- Certified 87 percent of EM contract specialists through DOE's Acquisition Career Management program.
- 94% of EM Cleanup projects are managed by a Federal Project Director certified at the appropriate level of the Project Management Career Development Program.
- Developed NNSA staffing algorithm based upon the Departmental model.
- Conducted review of five largest NNSA projects to determine staffing requirements.

Root Cause: Inadequate training

- DOE's Certification Review Board (comprised of NNSA, EM and SC) increased funding for the Program Management Career Development Program (PMCDP) from \$1.0M in 2008 to \$1.4M in 2009.

Root Cause: Lack of management emphasis and direction

- Staffing levels in EM have been increased with the support of senior leaders.
- In EM, Quarterly Project Reviews (QPRs), Deep Dive Reviews and Monthly Project Reviews are used to bring stakeholder concerns to the attention of HQ, issues are discussed and direction/guidance provided to the site as necessary.

CAP Items Requiring Further Action To Complete:

- Complete and issue Risk Management Guide. Ongoing continuous improvement actions are identified in Section 4.0.

CORRECTIVE MEASURE 4 – ALIGN AND INTEGRATE BUDGET PROFILES AND PROJECT COST BASELINES

Corrective Measure 4: Improve the alignment and integration of cost baselines with budget funding profiles to account for federal budget fiscal realities and to ensure uninterrupted project execution. Enhance project and program prioritization and associated resource allocation to minimize negative impacts to the performance baseline.

Accomplishments: The Department improved the alignment and integration of cost baselines with budget funding profiles to account for fiscal realities and ensures uninterrupted project execution. Specifically, the Department:

- EM has restructured projects into smaller, better defined capital asset projects and non-capital operations activities to provide more focused management and oversight.
- EM used Analytical Building Blocks (ABBs) to facilitate planning and the integrated priority list (IPL) to align budget and project management functions.
- EM has implemented a policy requiring that performance baselines for capital asset projects are established with a minimum 80% confidence level and that contingency is budgeted for in the baseline.

Corrective Measure 4: Improve the alignment and integration of cost baselines with budget funding profiles to account for federal budget fiscal realities and to ensure uninterrupted project execution. Enhance project and program prioritization and associated resource allocation to minimize negative impacts to the performance baseline.

Issue 4: Failure to request and obtain full funding or planned incremental funding results in increased risk of project failure.

Actions to Address Root Causes:

Root Cause: Ineffective project and program prioritization

- EM is working with DOE's S-3 and CFO to establish and obtain commitment for outyear profiles; even if below current outyear baselines, the profiles will provide the opportunity to re-evaluate baselines to ensure effective project management.
- EM develops and maintains an Integrated Priority List (IPL) for each one of its sites. The IPL, in turn, provides a 5 year funding requirement for each project.
- Beginning in FY 2012, EM's activities will be categorized as follows: Capital Asset, Line Item Construction, and Operating Activity. This categorization will allow EM to better manage and prioritize projects from a programmatic perspective.
- EM pursues cleanup objectives within the overall framework of achieving the greatest risk reduction benefit per radioactive content overlaying regulatory compliance commitments and best business practices to maximize cleanup progress.

Root Cause: Inadequate resource allocation

- EM utilizes analyses in the budget decision process to determine the proper allocation of funding resources. For example, excessive uncostered balances and poor performing projects are reviewed to determine source performance and appropriate allocations.

CAP Items Requiring Further Action To Complete:

- No further corrective actions needed. Ongoing continuous improvement actions are identified in Section 4.0.

CORRECTIVE MEASURE 5 – IMPROVE INDEPENDENT GOVERNMENT COST ESTIMATES

Corrective Measure 5: Establish and implement a federal independent government cost estimating capability, including the development of appropriate policy and standards, allocation of required resources, and compilation of unit cost labor and material databases.

Accomplishments: The Department established and implemented a federal independent government cost estimating capability and requires independent government cost estimates be accomplished prior to contract awards. Additionally, the Department:

- Established a cost estimating Center of Excellence at the EM Consolidated Business Center to improve the quality of independent government estimates for construction and cleanup projects.
- Continued to develop the Environmental Cost Analysis System (ECAS) to consolidate data from completed projects in a database to promote improved cost estimating.
- EM is utilizing FAR Part 15 contracts that require offerers to develop cost proposals.

Corrective Measure 5: Establish and implement a federal independent government cost estimating capability, including the development of appropriate policy and standards, allocation of required resources, and compilation of unit cost labor and material databases.

Issue 5: Contracts for projects are too often awarded prior to the development of an adequate independent government cost estimate.

Actions to Address Root Causes:

Root Cause: Lack of personnel with the appropriate skills

- EM conducted project specific reviews to assess appropriate number of skilled personnel necessary to provide management and oversight of its projects.
- EM self identified projects where specific skills were lacking and augmented project teams with USACE personnel with specific expertise and experience. .
- EM has established the Acquisition Cadre for EM (ACE) that provides trained and experienced personnel to serve in acquisition roles across EM.

Root Cause: Lack of policy or standards

- EM has developed standardized guidance, requirements, and processes for certifying Contracting Officer Representatives (CORs).
- In EM, Certified EVM systems are used across the EM complex on the majority of projects. Certification standards are maintained via scheduled Surveillances of the EVMS. Policies, procedures and a Federal and contractor change control boards are in place to manage changes on project schedules.
- In April 2010, EM issued guidance to standardize contingency and management reserve policy for EM projects.
- EM established the Cost Estimating & Analysis Center to establish standards, policy, and procedures to ensure that cost estimates are accurate, traceable, and reliable.
- In April 2010, EM issued guidance to standardize contingency and management reserve policy for EM projects.

Root Cause: Lack of databases with current or historical information

- EM developed an Environmental Cost Analysis System (ECAS) that contains historical cost information from the Rock Flats, Fernald, Mound, and Oak Ridge Melton Valley closure projects. Going forward ECAS will be used to capture current and historical information related to ARRA projects, and will be expanded to store information from the Office of Cost Analysis (CF-70) as they develop a DOE historical cost database.

CAP Items Requiring Further Action To Complete:

- Complete and issue the Cost Estimating Guide. Ongoing continuous improvement actions are identified in Section 4.0.

CORRECTIVE MEASURE 6 – IMPROVE ACQUISITION STRATEGIES AND PLANS

Corrective Measure 6: Strengthen the commitment to federal ownership by aligning and integrating acquisition strategies and acquisition plans and project plans; clearly define roles and responsibilities, enhance integrated project teams participation, and ensure accountability for ownership and integration.

Accomplishments: The Department strengthened its commitment to federal ownership by aligning and integrating acquisition strategies and plans with project plans.

- EM expanded the use of FAR Part 15 (non-M&O) contracts for its capital asset projects and other non-capital work and awarded smaller, more-focused contracts (e.g., work previously performed by three prime contractors at EM's Hanford and Savannah River sites is now performed by 5 prime contractors).
- EM established Procurement Strategy Panel with senior level representation from EM, MA, GC, OECM, and the Office of Small and Disadvantaged Business Utilization to discuss procurement strategy with the Integrated Project Team early in the planning process to address issues that could result in future delays. Established the Environmental Management Acquisition Center (EMAC) to standardize the acquisition planning process resulting in more efficient and timely acquisitions.
- EM performed Independent Government Cost Estimates for all new procurements.

Issue 6: DOE's acquisition strategies and plans are often ineffective and are not developed and driven by federal personnel. DOE does not begin acquisition planning early enough in the process or devote the time and resources to do it well.

Actions to Address Root Causes:

Root Cause: Lack of personnel with the appropriate skills

- EM conducted project specific reviews to assess appropriate number of skilled personnel necessary to provide management and oversight of its projects.
- EM self identified projects where specific skills were lacking and augmented project teams with USACE personnel with specific expertise and experience.
- EM has established the Acquisition Cadre for EM (ACE) that provides trained and experienced personnel to serve in acquisition roles across EM.

Root Cause: Conflicting and competing priorities

- In FY 2009, EM created the Office of Project Management, following a model established by the Office of Science. This realignment (i.e., separating contracting from project management functions) brings added focus for addressing EM's project and contract management, and allows conflicting and competing priorities to be managed at the Program level.
- EM hired additional Procurement Analysts and Acquisition Planning Managers with the necessary experience to resolve resource conflicts for these valuable resources.
- EM developed and executed a Corrective Action Plan (EMCAP) which consolidates all previous project and contract management initiatives into a single, consolidated and coordinated action plan. This plan tracks to completion previous actions and provides the mechanism for continuous improvement.

Corrective Measure 6: Strengthen the commitment to federal ownership by aligning and integrating acquisition strategies and acquisition plans and project plans; clearly define roles and responsibilities, enhance integrated project teams participation, and ensure accountability for ownership and integration.

Root Cause: Inadequate roles and responsibilities definition

- EM has reorganized its headquarters function and clearly defined roles and responsibilities at the Deputy Secretary levels and below. Additionally, the reorganization resulted in clear and documented roles and responsibilities between the headquarters function and field activities.
- In EM, a Concept of Operations Document was issued to clarify roles and responsibilities and provide guidance on the realignment of EM procurement operations under a single Head of Contracting Activity.

Root Cause: Personnel resource conflicts and budget limitations

- In EM, contingency use is closely monitored to assure that risk and the implementation of associated mitigation strategies are consistent with the RMP as described in DOE G 413.3-7, Risk Management Guide.
- On a site-by-site basis EM has largely corrective Contract Management shortfalls by deploying 67 FTEs to 8 sites and Program HQ since October 2009.
- In EM, budgets for capital asset projects are set at 80% confidence levels. In some cases budgets still do not adequately account for some risk occurrence due to restricted funding profiles. However, funding profiles are now being aligned to ensure proper budget to address identified risks for all capital asset projects.

Root Cause: Lack of effective field and headquarters integration

- EM works with the Office of Procurement and Acquisition Management (OPAM) to improve the coordination of the Headquarters Business Clearance Review processes and staff interactions.
- EM participates in Pre-Award Reviews where Integrated Project Teams, OPAM and the Office of General Counsel (GC) meet to discuss the status of procurement actions.
- EM introduced an eighty percent review activity that provides an interim review at the final stages of the procurement process to expedite the final review of procurement documents.
- EM introduced Procurement Strategy Panels that enable EM Senior Managers, OPAM, GC, the Office of Small and Disadvantaged Business Utilization, and the Office of Engineering and Construction Management to meet and discuss all aspects of an upcoming procurement with the Integrated Project Team early in the planning process to address issues that could potentially cause delays later in the process.
- EM has developed a count-down schedule to ensure that all those engaged in the final stages of the procurement process are aware of and working together to meet the contract award need date.
- EM has established monthly/quarterly meetings with Field Procurement Directors for both Pre-award and Post-award activities.
- EM will participate on teams led by OPAM to conduct Procurement Management Reviews at selected DOE field sites and at DOE Headquarters.

Root Cause: Lack of lessons learned

- Following the completion of each major contract award, EM surveys the appropriate team members to solicit lessons learned. The lessons are posted on the EM portal for review use by EM project team members.
- EM has conducted an assessment of Pre-award and Post-award activities to identify lessons learned for improving the procurement process. As a result of the assessment, EM is planning to move to a pilot to increase the delegated procurement authority for the EM Consolidated Business Center.

Corrective Measure 6: Strengthen the commitment to federal ownership by aligning and integrating acquisition strategies and acquisition plans and project plans; clearly define roles and responsibilities, enhance integrated project teams participation, and ensure accountability for ownership and integration.

- EM has undertaken a review to benchmark its Requests for Proposal process against other federal agencies to determine if these agencies have better approaches, innovations, or best practices that could be applied to future EM contracts as lessons learned. Results of the review are being analyzed to determine application to EM.

CAP Items Requiring Further Action To Complete:

- Complete and issue the Change Control Guide. Ongoing continuous improvement actions are identified in Section 4.0.

CORRECTIVE MEASURE 7 – IMPROVE PROJECT OVERSIGHT AND MANAGEMENT

Corrective Measure 7: Identify and implement opportunities to improve the management and oversight of projects; clarify federal project management roles, responsibilities, and authorities, including field and headquarters integration; establish a project oversight benchmark; and align the program and project organizational structures.

Accomplishments: The Department has improved the management and oversight of projects.

- Established an improved EM Business Model shifting greater authority and accountability to the field.
- Strengthening EM Headquarters policy, planning and best practice dissemination functions (e.g., adopting an “Advise-Assist-Assess” headquarters model).
- EM conducted five acquisition management reviews at field sites in FY09 and completed validation and verification reviews for corrective actions by May 2010.
- EM conducts combined reviews for capital projects and operations activities and has increased the frequency of EM senior management reviews with the prime contractor and Federal staff from quarterly to monthly. OMB and GAO are invited to participate in the Monthly Reviews.
- EM has developed an Executive Dashboard that is accessible to all EM federal employees complex wide. The Dashboard enables tracking commitments made as part of the Program Reviews conducted by the Deputy Secretary and it enables the user to quickly ascertain key information on performance and financial aspects associated with each project and operations activity.
- EM used the Recovery Act as an incubator for further advances in contract and project management by separating operations activities from capital projects to provide greater clarity and focus for management and oversight.
- Established an Independent Quality Assurance Program to verify that corrective actions resulting from studies of EM project management are sustained as continuing elements of EM program execution, with a focus on ensuring that processes and procedures are being followed and effective.
- EM is establishing partnering relationships for all major contracts where Federal and contractor personnel understand the rules of engagement and build better business relationships.

Corrective Measure 7: Identify and implement opportunities to improve the management and oversight of projects; clarify federal project management roles, responsibilities, and authorities, including field and headquarters integration; establish a project oversight benchmark; and align the program and project organizational structures.

Issue 7: DOE's organizational structure is not optimized for managing projects.

Actions to Address Root Causes:

Root Cause: Conflicting and competing priorities

- In FY 2009, EM created the Office of Project Management, following a model established by the Office of Science. This realignment (i.e., separating contracting from project management functions) brings added focus for addressing EM's project and contract management, and allows conflicting and competing priorities to be managed at the Program level.
- EM hired additional Procurement Analysts and Acquisition Planning Managers with the necessary experience to resolve resource conflicts for these valuable resources.
- EM developed and executed a Corrective Action Plan (EMCAP) which consolidates all previous project and contract management initiatives into a single, consolidated and coordinated action plan. This plan tracks to completion previous actions and provides the mechanism for continuous improvement.

Root Cause: Lack of prioritization on project management

- Office of Project Management supported by Chief Technical Officer, EM-3 in new organization. Office of Acquisition and Contract Management supported by Chief Business Officer, EM-4.
- EM GAO Task Team chartered July 2010 to focus on recent and continuing actions to improve project and contract management sufficient to be removed from the GAO High Risk list.

Root Cause: Lack of alignment in authority, accountability, and responsibility

- EM has reorganized its headquarters function and clearly defined roles and responsibilities at the Deputy Secretary levels and below. Additionally, the reorganization resulted in clear and documented roles and responsibilities between the headquarters function and field activities.
- In EM, a Concept of Operations Document was issued to clarify roles and responsibilities and provide guidance on the realignment of EM procurement operations under a single Head of Contracting Activity.

Root Cause: Attributes of optimized organizational structure are not understood

- EM recognized the attributes of an optimized organizational structure and has implemented a new organizational structure. Priorities are clearly documented and communicated and EM is able to achieve its mission, goals and objectives more effectively.

Issue 9: Ineffective DOE project oversight has sometimes resulted in failure to identify project performance issues in a timely manner.

Actions to Address Root Causes:

Root Cause: Conflicting and competing priorities

- In FY 2009, EM created the Office of Project Management, following a model established by the Office of Science. This realignment (i.e., separating contracting from project management functions) brings added focus for addressing EM's project and contract management, and allows conflicting and competing priorities to be managed at the Program level.

Corrective Measure 7: Identify and implement opportunities to improve the management and oversight of projects; clarify federal project management roles, responsibilities, and authorities, including field and headquarters integration; establish a project oversight benchmark; and align the program and project organizational structures.

- EM hired additional Procurement Analysts and Acquisition Planning Managers with the necessary experience to resolve resource conflicts for these valuable resources.
- EM developed and executed a Corrective Action Plan (EMCAP) which consolidates all previous project and contract management initiatives into a single, consolidated and coordinated action plan. This plan tracks to completion previous actions and provides the mechanism for continuous improvement.

Root Cause: Lack of prioritization on project management

- Office of Project Management supported by Chief Technical Officer, EM-3 in new organization. Office of Acquisition and Contract Management supported by Chief Business Officer, EM-4.
- EM GAO Task Team chartered July 2010 to focus on recent and continuing actions to improve project and contract management sufficient to be removed from the GAO High Risk list.

Root Cause: Inadequate field oversight

- Quarterly Contract Reviews are conducted quarterly between EM-Sites and EM-HQ.
- EM conducts monthly project reviews for all line item projects, current projects with RED/YELLOW performance, and high-visibility projects with GREEN performance. Projects with GREEN performance and CD-1/CD-1 projects are reviewed on a quarterly basis.
- EM has conducted several Construction Project Reviews (CPRs) which included the following projects: WTP, SWPF, IWTU, U233, DUF6, and Plutonium Preparation.
- EM has established the Office of Environmental Management Quality Assurance Corporate Board.
- Federal Project Directors have been directed implement the Vendor Shop Initiative (VSI) Phase I. There are tentative plans to integrate lines of inquiry relative to the quality of inspections at the Vendor Shops as part of either the EM HQ Oversight Strategy vendor reviews or as part of the Joint Supplier Evaluation Program recently approved by the EM QA Corporate Board.
- EM conducted 20 Site assessments in FY2009. Thirteen Phase II audits were conducted to evaluate the operational, small sites, and construction projects and follow-up on issues identified from previous FY2007/2008 audits including four high-level waste (HLW)/used nuclear fuel audits. Three readiness review surveillances were conducted concurrently as part of a three-phased approach to qualify Federal and contractor HLW programs at an EM Site. Corrective actions from issues/findings identified during these assessments are tracked and verified in the EM Corrective Action tracking database.
- EM also developed a methodology for planning, prioritizing, and scheduling QA assessments. High priority areas include: major construction and capital asset projects, including Recovery Act-funded projects (American Recovery and Reinvestment Act); focus on QA program implementation at the Sites; cross-cutting and generic QA issues; and follow-up of corrective action implementation.

Issue 10: DOE is not effectively executing its ownership role on some large projects with respect to the oversight and management of contracts and contractors.

Actions to Address Root Causes:

Root Cause: Lack of personnel with the appropriate skills

- EM conducted project specific reviews to assess appropriate number of skilled personnel necessary to provide management and oversight of its projects.

Corrective Measure 7: Identify and implement opportunities to improve the management and oversight of projects; clarify federal project management roles, responsibilities, and authorities, including field and headquarters integration; establish a project oversight benchmark; and align the program and project organizational structures.

- EM self identified projects where specific skills were lacking and augmented project teams with USACE personnel with specific expertise and experience.
- EM has established the Acquisition Cadre for EM (ACE) that provides trained and experienced personnel to serve in acquisition roles across EM.

Root Cause: Inconsistent expectations and definition of federal ownership role

- In FY 2009, EM implemented an improved new business model that clearly identifies roles and responsibilities between EM headquarters and the field, . This model: 1) Clarifies the roles and responsibilities between EM Headquarters and the Field; 2) Clearly establishes direct authority and accountability; 3) Recognizes that EM's mission is performed in the Field; and 4) Drives EM towards "one way of doing business".
- EM has reorganized its headquarters function and clearly defined roles and responsibilities at the Deputy Secretary levels and below. Additionally, the reorganization resulted in clear and documented roles and responsibilities between the headquarters function and field activities.
- In EM, a Concept of Operations Document was issued to clarify roles and responsibilities and provide guidance on the realignment of EM procurement operations under a single Head of Contracting Activity.

CAP Items Requiring Further Action To Complete:

- Implement a Program/Project prioritization process, improve alignment of project performance and contract incentives/fee determination, and improve accountability. Ongoing continuous improvement actions are identified in Section 4.0.

CORRECTIVE MEASURE 8 – IMPROVE ADHERENCE TO PROJECT MANAGEMENT REQUIREMENTS

Corrective Measure 8: Re-evaluate program and project management policy, guidance, and standards for alignment and consistency. Establish measures and procedures to ensure that all project management requirements are clearly documented and followed and responsible personnel are held accountable.

Accomplishments: The Department re-evaluated program and project management policy, guidance and standards and improved adherence to project management requirements.

- Updated and aligned EM corporate metrics with restructured projects and operations.
- Ensured that nearly 86% of EM projects are managed using certified EVM systems.
- Increased the frequency of EM senior management reviews of projects and operations activities with the prime contractor and Federal staff from quarterly to monthly.
- EM established Recovery Act Site Representatives (RASRs) to provide additional oversight of contractor Recovery Act work.

Corrective Measure 8: Re-evaluate program and project management policy, guidance, and standards for alignment and consistency. Establish measures and procedures to ensure that all project management requirements are clearly documented and followed and responsible personnel are held accountable.

- EM piloted use of the Enterprise Project Control System (EPCS) in September 2010 to collect the baseline and schedule data for projects and operations and evaluate performance.
- EM enhanced IPABS to improve reporting information and expand performance data.

Issue 8: DOE has not ensured that its project management requirements are consistently followed. In some instances projects are initiated or carried out without fully complying with the processes and controls contained in DOE policy and guidance.

Actions to Address Root Causes

Root Cause: Conflicting and competing priorities

- In FY 2009, EM created the Office of Project Management, following a model established by the Office of Science. This realignment (i.e., separating contracting from project management functions) brings added focus for addressing EM's project and contract management, and allows conflicting and competing priorities to be managed at the Program level.
- EM hired additional Procurement Analysts and Acquisition Planning Managers with the necessary experience to resolve resource conflicts for these valuable resources.
- EM developed and executed a Corrective Action Plan (EMCAP) which consolidates all previous project and contract management initiatives into a single, consolidated and coordinated action plan. This plan tracks to completion previous actions and provides the mechanism for continuous improvement.

Root Cause: Inadequate training

- DOE's Certification Review Board (comprised of NNSA, EM and SC) increased funding for the Program Management Career Development Program (PMCDP) from \$1.0M in 2008 to \$1.4M in 2009.

Root Cause: Lack of adequate personnel resources

- EM has established a Project Management Partnership (PMP) with the US Army Corps of Engineers (USACE) to provide budget, construction management, engineering and technical services to supplement EM personnel on EM projects. Contract management shortfalls have largely been corrected on a site-by-site basis with 67 FTEs deployed at 8 sites and HQ using existing USACE contracts and resources.
- EM has also implemented the Technical Expert Group (TEG) which allows EM to partner with laboratories across the DOE complex for technical expertise support to EM projects.
- EM has established Reinforcement Teams that provide additional contract and project management resources as required for projects.

Root Cause: Lack of failed project reviews

- EM created the Standard Review Plan (SRP) Modules which are located on the EM website. The SRP Modules cover the areas of Project Management, Engineering and Design, Safety, Environment, Security, and Quality Assurance.
- EM has consolidated access to all Orders, Guides, Memorandums, and EM Standard Operating Process and Procedures on the EM Communication Portal.

Corrective Measure 8: Re-evaluate program and project management policy, guidance, and standards for alignment and consistency. Establish measures and procedures to ensure that all project management requirements are clearly documented and followed and responsible personnel are held accountable.

- EM conducted Acquisition Management Reviews (AMRs) at EM sites. FY09 Assessments for five field sites were established. All five validations and verification of assessments were completed by May 2010.
- EM participated in OPAM Procurement Management Reviews across DOE sites.

CAP Items Requiring Further Action To Complete:

- No further corrective actions needed. Ongoing continuous improvement actions are identified in Section 4.0.